



Pre-Permitting Environmental/ Socio-Economic Data Report Series

Report Series A-Meteorology

Report A-1 2007 Annual Data Report – Pebble 1 Station

Submitted to the Alaska Department of Environmental Conservation April 2008

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The Pebble Partnership is providing environmental and socio-economic baseline data collected to inform the development of the Pebble Project to state and federal agencies, project stakeholders and the general public prior to project permitting as part of its commitment to full and open disclosure.

A comprehensive Environmental Baseline Document (EBD) will subsequently be prepared and appended to future project permit applications. The EBD will also be made publicly available when complete.



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2007 Annual Data Report Pebble 1 Station

for the:

**Pebble Project
Meteorological Monitoring Program**
Iliamna, Alaska

prepared for:

**Pebble Limited Partnership,
care of Pebble Mines Corp.**

prepared by:



April 2008

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2007 Annual Data Report**

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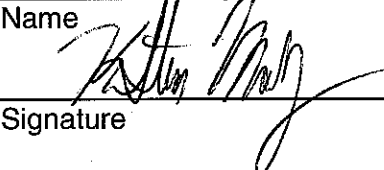
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Executive Summary

On behalf of The Pebble Limited Partnership, care of Pebble Mines Corp., its general partner, HCG Inc, dba. Hoefler Consulting Group is collecting meteorological data to support baseline environmental studies, mine design objectives, and Prevention of Significant Deterioration (PSD) permitting needs for the Pebble Project.

Prevention of Significant Deterioration (PSD) quality meteorological monitoring for the Pebble Project began on August 1, 2005 and will be ongoing. This report provides details of the 2007 calendar year of meteorological measurements collected from January 1, 2007 through December 31, 2007 at the proposed mill location.

Table E-1 and E-2 provide monthly and annual valid data capture hours and the percent data capture, respectively, for the Pebble 1 (Mine PSD) meteorological monitoring station. The Pebble 1 meteorological monitoring station met all PSD requirements during the monitoring year with the exception of the Delta T parameter, which did not meet the minimum PSD monitoring requirement of 90 percent data capture or better during Monitoring Quarters A (January 1, 2007 through March 31, 2007), B (April 1, 2007 through June 30, 2007), and Quarter C (July 1, 2007 through September 30, 2007) as a result of the failure of the 10-meter temperature sensor. However, the Delta T data capture rates from the previous monitoring year will fulfill modeling needs for air permitting purposes.

In addition, a February wind storm caused damage to the secondary wind sensor and subsequently data loss. However the primary wind sensor met the 90 percent data capture goals for all months and quarters for the monitoring year.

Table E-1. Meteorological Data Capture – Valid Hours per Month

Period	Meteorological Parameters													
	2-m Temp	10-m Temp ⁴	ΔT^4	WS (CLM) ¹	WD (CLM)	Sigma (CLM)	WS (RMY) ²	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
January 2007	739	384	384	739	739	739	704	704	704	744	744	744	742	N/A ³
February 2007	672	0	0	672	672	672	536	536	536	672	672	672	667	N/A
March 2007	744	0	0	744	744	744	744	744	744	744	744	744	742	N/A
April 2007	720	0	0	720	720	720	720	720	720	720	720	720	720	N/A
May 2007	744	0	0	744	744	744	744	744	744	744	744	744	741	718
June 2007	720	0	0	720	720	720	720	720	720	720	720	720	720	720
July 2007	744	0	0	744	744	744	744	744	744	744	744	744	744	744
August 2007	744	42	42	744	744	744	744	744	744	744	744	744	742	742
September 2007	712	711	711	695	713	713	713	713	713	712	712	713	708	713
October 2007	744	744	744	744	744	744	744	744	744	744	744	744	741	285
November 2007	720	720	720	720	720	720	720	720	720	720	720	720	720	N/A
December 2007	672	672	672	672	672	672	672	672	672	672	672	672	672	N/A
Monitoring Year	8,675	3,273	3,273	8,658	8,676	8,676	8,505	8,505	8,505	8,680	8,680	8,681	8,659	3,922³

¹ CLM = Climatronics wind speed and wind direction sensor.

² RMY = R.M. Young wind speed and wind direction sensor.

³ Not applicable. The evaporation gauge was in commission from May 2 to October 12.

⁴ Data captured in the previous monitoring year can fulfill modeling needs for air permitting purposes.

Table E-2. Meteorological Data Capture – Percent Data Capture

Period	Meteorological Parameters													
	2-m Temp	10-m Temp ⁴	ΔT^4	WS (CLM) ¹	WD (CLM)	Sigma (CLM)	WS (RMY) ²	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
January 2007	99.3%	51.6%	51.6%	99.3%	99.3%	99.3%	94.6%	94.6%	94.6%	100%	100%	100%	99.7%	N/A ³
February 2007	100%	0.0%	0.0%	100%	100%	100%	79.8%	79.8%	79.8%	100%	100%	100%	99.3%	N/A
March 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	N/A
Quarter A	99.8%	17.8%	17.8%	99.8%	99.8%	99.8%	91.9%	91.9%	91.9%	100%	100%	100%	99.6%	N/A
April 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
May 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	99.7%
June 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Quarter B	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.9%	99.9%
July 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
August 2007	100%	5.6%	5.6%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	99.7%
September 2007	98.9%	98.8%	98.8%	96.5%	99.0%	99.0%	99.0%	99.0%	99.0%	98.9%	98.9%	99.0%	98.3%	99.0%
Quarter C	99.6%	34.1%	34.1%	98.9%	99.7%	99.7%	99.7%	99.7%	99.7%	99.6%	99.6%	99.7%	99.4%	99.6%
October 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	100%
November 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
December 2007	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	N/A
Quarter D	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.6%	100%
Monitoring Year	99.0%	37.4%	37.4%	98.8%	99.1%	99.1%	97.1%	97.1%	97.1%	99.1%	99.1%	99.1%	98.9%	100%

¹ CLM = Climatronics wind speed and wind direction sensor.

² RMY = R.M. Young wind speed and wind direction sensor.

³ Not applicable. The evaporation gauge was in commission from May 2 to October 12.

⁴ Data captured in the previous monitoring year can fulfill modeling needs for air permitting purposes.

1.0 Introduction

1.1 Project Summary

On behalf of The Pebble Limited Partnership, care of Pebble Mines Corp., its general partner, HCG Inc, dba. Hoefler Consulting Group is collecting meteorological data to support baseline environmental studies, mine design objectives, and future Prevention of Significant Deterioration (PSD) permitting needs for the Pebble Project, an initiative to develop and operate an open-pit gold, copper, molybdenum, and silver mine in the Bristol Bay region of southwest Alaska. This project currently consists of three PSD-quality meteorological monitoring stations located at the proposed mill site (Pebble 1), the tailings storage facility (Pebble 4), and port site (Pebble Port). An additional, non-PSD meteorological monitoring station (Pebble 3) is being used for engineering and mine design purposes. Of the three PSD-quality meteorological monitoring stations, continuous measurements were made at the Pebble 1 and Pebble Port stations beginning on August 1, 2005. This data report focuses on data collected from January 1, 2007 through December 31, 2007 at the Pebble 1 meteorological station.

Figure 1-1 is a map of the Pebble Project meteorological monitoring sites located in southwest Alaska. Figures 1-2 and 1-3 provide a higher resolution map and a site photo, respectively, of the Pebble 1 station. A separate annual data report has been prepared for each of the Pebble 4 and Pebble Port stations.

The Pebble 1 station collects data for the following parameters:

- Air temperature, two meters above ground (degrees Celsius [°C])
- Air temperature, ten meters above ground (degrees Celsius [°C])
- Vertical temperature difference (ΔT , "Delta T" (degrees Celsius [°C]))
- Wind speed (meters per second [m/s])
- Wind direction (degrees [°])
- Wind direction standard deviation (wind sigma [σ_θ])
- Relative humidity (percent [%])
- Solar radiation (Watts per square meter [W/m^2])
- Barometric Pressure (millibar [mb]).
- Precipitation (millimeters [mm])
- Evaporation (millimeters [mm])

Measurements of these parameters will provide at least one year of representative surface observations for use in air dispersion modeling and PSD permitting needs.

1.2 Measurements Method Table

Table 1-1 lists each parameter measured at the Pebble 1 station and includes the sensor manufacturer and model number, measurement range, accuracy, sampling frequency, and sample averaging period. All instruments meet or exceed the U.S. Environmental Protection Agency (EPA) PSD requirements for range accuracies, thresholds, response times, resolutions, damping ratios, and other measures of instrument performance. For this project, wind speed and wind direction measurements are collected using two different types of PSD-quality sensors collocated at 10-meters above ground level. The Climatronics F460 (CLM) features a three-cup anemometer and separate wind vane, while the RM Young 05305-AQ (RMY) is a propeller-vane anemometer, which is a single unit consisting of a four-blade propeller fitted to the front end of a wind vane. Dual wind sensors are deployed at the Pebble 1 station to prevent the loss of valid data in the event that one of the sensors is damaged or subjected to inclement weather conditions. Because the manufacturers' stated wind speed accuracy, wind direction accuracy, and wind speed threshold values of the CLM sensor exceed those of the RMY sensor, the CLM sensor has been designated as the "primary" wind instrument at the Pebble 1 station.

1.3 Variations from the Quality Assurance Project Plan

During the 2007 monitoring year, there were no variations from the Pebble Project Meteorological Monitoring Quality Assurance Project Plan (QAPP).

Table 1-1. Meteorological Measurement Methods

Parameter	Sensor Manufacturer/ Model Number	Measurement Method	Range	Accuracy	Sampling Frequency	Averaging Period
Ambient Temperature	Met One, Inc. Model 062 MP	Solid state thermistor	+50°C to -50°C	± 0.05°C	1 second	1 hour
Wind Speed¹	Climatronics, Inc. F460 (P/N 100075)	Three-cup anemometer, LED photo chopper	0 to 65 m/s	± 0.15 m/s or 1%	1 second	1 hour
Wind Direction¹	Climatronics, Inc. F460 (P/N 100076)	Light-weight vane, Low torque potentiometer	0 to 360°	± 2°	1 second	1 hour
Wind Speed¹	RM Young Co. 05305-AQ	Propeller, magnetically induced AC sine wave	0 to 60 m/s	± 0.3 m/s or 1%	1 second	1 hour
Wind Direction¹	RM Young Co. 05305-AQ	Light-weight vane, Low torque potentiometer	0 to 360°	± 3°	1 second	1 hour
Relative Humidity	Vaisala, Inc. HMP 45C	Capacitive polymer chip	0.8 to 100%	± 2%	1 second	1 hour
Solar Radiation	LI-COR, Inc. LI200X	Silicon photovoltaic detector	0 to 3,000 W/m ² (400 to 1,100 nm)	± 5%	1 second	1 hour
Barometric Pressure	Vaisala, Inc. PTB 101B	Silicon capacitive sensor	600 to 1060 mb	± 0.5 mb	1 hour ²	N/A ²
Precipitation	ETI NOAH II	Pressure of water column above a load cell mechanism	0 to 12 in	± .254 mm	N/A ³	N/A ³
Evaporation	Nova Lynx 255-100	Change in pressure head determined by float mechanism	3 to 10 in	± 0.25% over 10 in range	1 second	1 minute

¹ Wind speed and wind direction measurements are collected using two different types of PSD-quality sensors.

² Instantaneous barometric pressure measurements are collected for 1 second during every hour.

³ Instantaneous precipitation measurements are collected by the datalogger and subsequently summed on an hourly basis.

Figure 1-1. Map of the Pebble Project Area

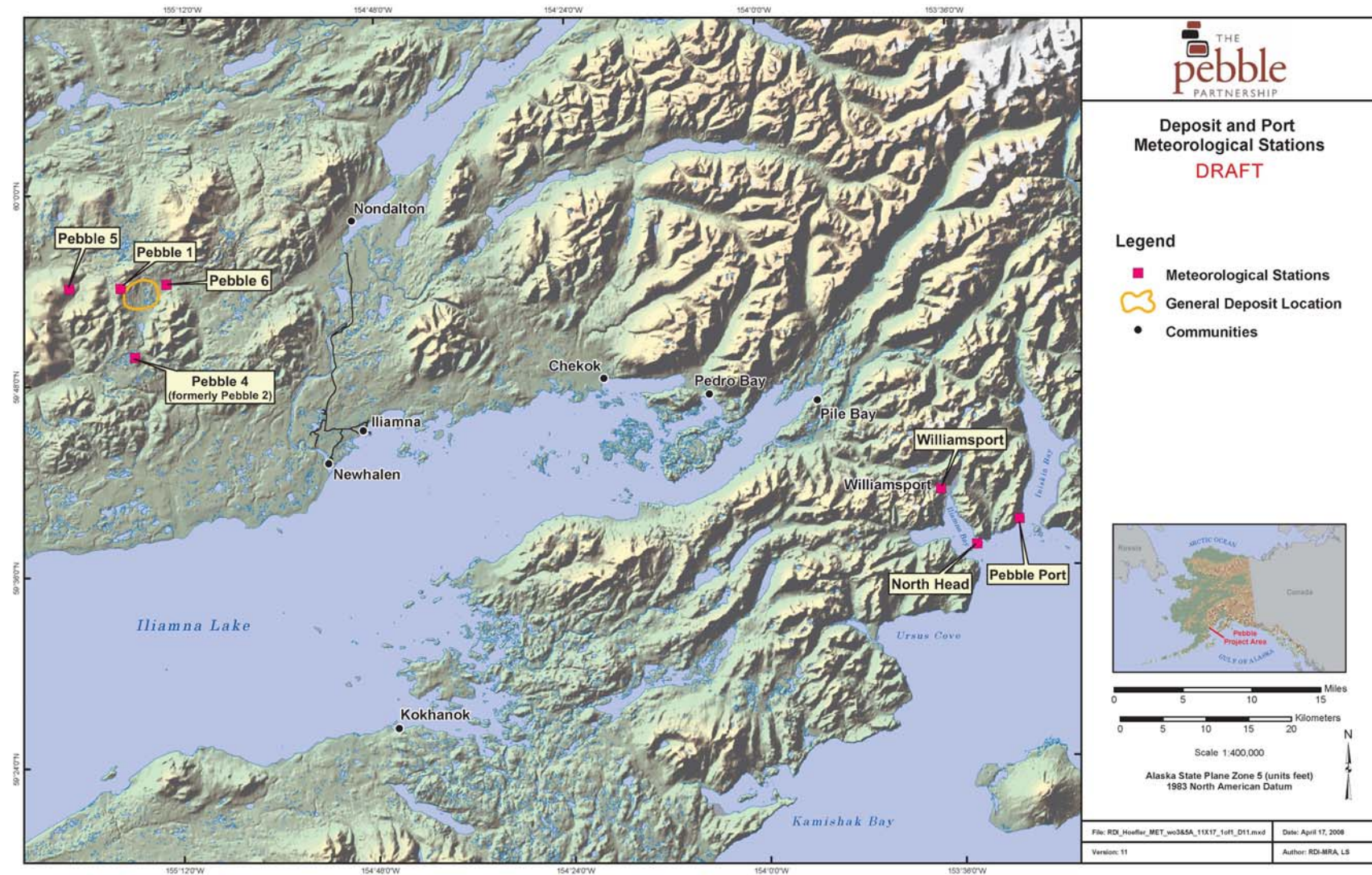


Figure 1-2. Map of the Pebble 1 Station

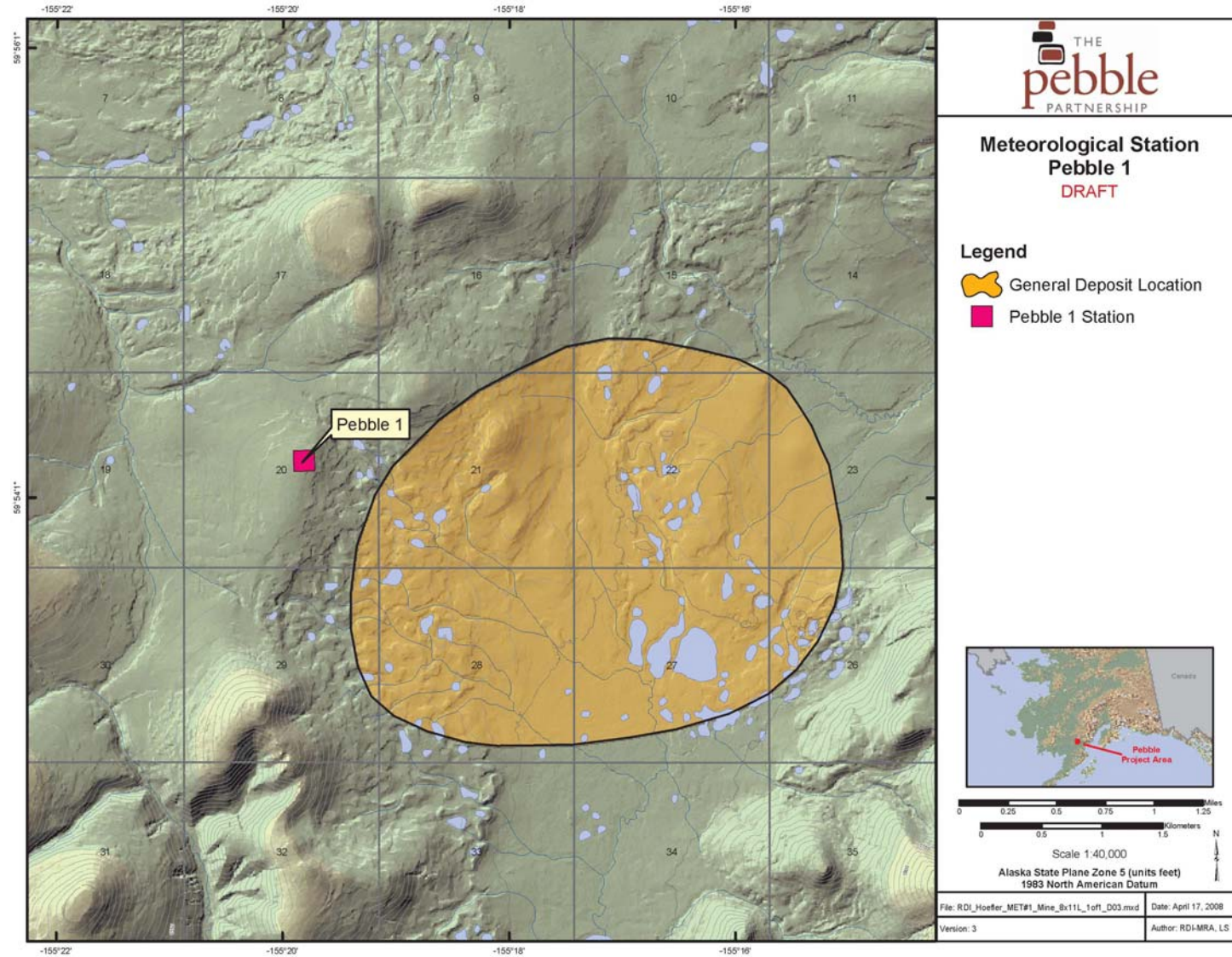


Figure 1-3. Pebble 1 Meteorological Monitoring Station



2.0 Station Performance Summary

2.1 Significant Project Events

Table 2-1 summarizes the significant events that occurred at the Pebble 1 station relevant to the 2007 meteorological monitoring year.

Table 2-1. Chronology of Significant Events

Date	Event
January 1, 2007	Beginning of 2007 monitoring year.
January 17, 2007	Full audit performed (all sensors passed), refreshed NOAH gauge, inspected Metone precipitation gauge.
February 6, 2007	Replaced R.M. Young instrument, refreshed precipitation gauges, repaired wind screen snow fencing.
March 22, 2007	Calibrated and refreshed NOAH gauge, replaced aspirator and vent fan control relay, uploaded new datalogger program.
May 1-2, 2007	Calibrated and refreshed precipitation gauges, calibrated and started evaporation gauge, cleaned station and tightened guy wires.
August 7, 2007	Site visit in response to NOAH precipitation gauge malfunction and to perform power system diagnostics.
September 2-4, 2007	Installed CR1000 data logger performed audits before and after installation, 10-meter temperature sensor failed first audit, all other sensors passed.
November 7 th , 2007	Started TEGs and serviced precipitation instruments.
December 31, 2007	Ending of 2007 monitoring year.
February 5-6, 2008	Full audit performed (all sensors passed).

2.2 Missing, Invalid, and Adjusted Data

The data for the Pebble 1 station were carefully reviewed during the quality assurance process. Some data were removed as a result of planned site activities, including data collected during station system and performance audits and calibrations

All data were validated only after being screened by the criteria listed in Table 8-4 of *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA-454/R-99-005). Table 2-2 lists the quantities of data that were flagged according to EPA criteria, yet not removed from the refined final data set. All flagged data were carefully examined, but generally remained in the reduced data unless dictated by certain circumstances, including values outside the normal range of variation, consecutive repetitive values recorded for an unidentified reason, maintenance activity at the site, and impairing damage to sensors.

2.3 Network Data Completeness

Data completeness is a measure of the amount of data actually collected compared to the amount of data that could have been collected. Data completeness was calculated by dividing the number of valid hours of data by the total number of hours during the monitoring period. The data quality objective (DQO) for data completeness for the Pebble Project Meteorological Monitoring Program is 90 percent data capture per quarter for each parameter listed in Section 1.1. Table 2-3 provides a summary of data completeness, in terms of a percentage, for the 2007 monitoring year at the Pebble 1 station.

Table 2-2. Percentage of Final Data Set Flagged

Parameter	Flagging Criteria ¹	Percent Flagged
Wind Speed (Climatronics)	Value is < 0 m/s	0.0%
	Value is > 25 m/s	1.5%
	< 0.1 m/s variation for 3 consecutive hours	2.6%
	<0.5 m/s variation for 12 consecutive hours	1.1%
Wind Direction (Climatronics)	Value is < 0°, > 360°	0.0%
	<1° variation over 3 consecutive hours	1.7%
	< 10° variation over 18 consecutive hours	1.6%
Wind Speed (RM Young)	Value is < 0 m/s	0.0%
	Value is > 25 m/s	0.9%
	< 0.1 m/s variation for 3 consecutive hours	0.8%
	<0.5 m/s variation for 12 consecutive hours	0.2%
Wind Direction (RM Young)	Value is < 0°, > 360°	0.2%
	<1° variation over 3 consecutive hours	1.6%
	< 10° variation over 18 consecutive hours	1.6%
Temperature (2 meters)	> 5°C variation from previous hour	0.1%
	< 0.5°C variation for 12 consecutive hours	1.6%
	Value is > record high, < record low	0.0%
Temperature (10 meters)	> 5°C variation from previous hour	0.1%
	< 0.5°C variation for 12 consecutive hours	1.2%
	Value is > record high, < record low	0.0%
Temperature Difference, ΔT	Value is > 0.8°C during the daytime	0.7%
	Value is < -0.8°C during the night	0.0%
	Value is > 5°C, < -3°C	0.0%
Relative Humidity (Dew Point Temperature)²	Value is > ambient temperature	0.0%
	> 5°C variation from previous hour	1.0%
	< 0.5°C variation for 12 consecutive hours	2.6%
	Equals ambient temperature for 12 consecutive hours	3.4%
Solar Radiation	> 0 W/m ² at night	0.0%
	Greater than the maximum possible value for date	0.0%
Barometric Pressure	> 1060 mb (sea level)	0.0%
	< 940 mb (sea level)	0.0%
	> 6 mb variation for 3 consecutive hours	0.1%
Precipitation	> 25 mm in one hour	0.0%
	> 100 mm in 24 hours	0.0%
	< 50 mm in one month	50.0%

¹ Based upon Table 8-4: Suggested Data Screening Criteria in *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA-454/R-99-005).

² Guidance document provides criteria relative to dew point temperature.

Table 2-3. Pebble 1 Station Percent Data Capture.

Period	Meteorological Parameters													
	2-m Temp	10-m Temp ⁴	ΔT^4	WS (CLM) ¹	WD (CLM)	Sigma (CLM)	WS (RMY) ²	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
January 2007	99.3%	51.6%	51.6%	99.3%	99.3%	99.3%	94.6%	94.6%	94.6%	100%	100%	100%	99.7%	N/A ³
February 2007	100%	0.0%	0.0%	100%	100%	100%	79.8%	79.8%	79.8%	100%	100%	100%	99.3%	N/A
March 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	N/A
Quarter A	99.8%	17.8%	17.8%	99.8%	99.8%	99.8%	91.9%	91.9%	91.9%	100%	100%	100%	99.6%	N/A
April 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
May 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	99.7%
June 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Quarter B	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.9%	99.9%
July 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
August 2007	100%	5.6%	5.6%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	99.7%
September 2007	98.9%	98.8%	98.8%	96.5%	99.0%	99.0%	99.0%	99.0%	99.0%	98.9%	98.9%	99.0%	98.3%	99.0%
Quarter C	99.6%	34.1%	34.1%	98.9%	99.7%	99.7%	99.7%	99.7%	99.7%	99.6%	99.6%	99.7%	99.4%	99.6%
October 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	100%
November 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
December 2007	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	N/A
Quarter D	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.6%	100%
Monitoring Year	99.0%	37.4%	37.4%	98.8%	99.1%	99.1%	97.1%	97.1%	97.1%	99.1%	99.1%	99.1%	98.9%	100%

¹ CLM = Climatronics wind speed and wind direction sensor.

² RMY = R.M. Young wind speed and wind direction sensor.

³ Not applicable. The evaporation gauge was in commission from May 2 to October 12.

⁴ Data captured in the previous monitoring year can fulfill modeling needs for air permitting purposes.

2.4 Precision Statistics

2.4.1 Monitoring Network Precision Statistics

Not applicable.

2.4.2 Analytical Laboratory Precision Statistics

Not applicable.

2.4.3 Analytical Laboratory Precision Statistics for Lead Analysis of Particulate Samples

Not applicable.

2.5 Accuracy Statistics

2.5.1 Instrument Calibration Statistics

Not applicable.

2.5.2 Independent Quality Assurance Audits

The first annual performance audit was conducted at the Pebble 1 station on January 17, 2007. The results of this audit are presented in Table 2-4. Additional sensor audits were conducted on February 6, 2007 on a new RM Young wind instrument after its installation due to windstorm damage sustained by the original instrument. A summary of the results from this supplemental performance audit is presented in Table 2-5.

The second annual performance audit was conducted at the Pebble 1 station on September 2, 2007. All sensors passed except for the Ten meter temperature sensor. 10-meter temperature data, and associated Delta T data from January 17 to September 2, 2007 was invalidated as a result of this audit finding. A second audit was performed on all station sensors on September 3 and September 4, 2007 to check sensor operation after upgrading the CR10X data logger with a CR1000 data logger. All sensors passed.

A performance audit was also performed on February 5 and 6, 2008 on all instruments except the tipping precipitation gauge due to the extreme cold ambient temperature. All tested sensors passed the audit when challenged with certified equipment. The results of the performance audits are presented in Tables 2-6, 2-7, and 2-8.

Performance audits involve reading the data acquisition system (DAS) output for each meteorological sensor and comparing the value with the input from appropriate audit equipment or from calibrated instruments collocated with the sensor. For each reading, the difference between the station value and the predicted value is compared with established PSD limits to assess the accuracy of the sensor. Complete performance audit reports for the monitoring year are available in Appendix C.

A technical systems audit was performed during the September 2 through 4, 2007 performance audit. During each technical audit, the power supply, DAS, communications system, and audited sensors all worked properly. The systems audit found that the station is well-planned, equipped with PSD quality equipment, and properly sited according to criteria recommended by EPA. The operator provided adequate manuals for system maintenance and proper documentation to report operation and quality control activities. The operator was knowledgeable and competent with all meteorological equipment, communications equipment, and the power supply system. Appendix C contains the complete technical systems audit report.

Table 2-4. January 17, 2007 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	0:01	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.48	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.48	Pass
Air Temperature Difference	$\leq \pm 0.1$	°C	0.00	Pass
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	-0.5	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	0.004	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy ($>5\text{m/s}$)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.090	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	1.7	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.1	Pass
Wind Direction Linearity	≤ 3	Degree	0.4	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	2.2	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	<0.003	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.01	Pass
High Wind Spd. Accuracy ($>5\text{m/s}$)	$\leq \pm 5$	% input	0.8	Pass
Wind Direction Torque	≤ 11	g-cm	8.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	-2.1	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.6	Pass
Wind Direction Linearity	≤ 3	Degree	0.8	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	-2.1	Pass
Barometric Pressure	$\leq \pm 3$	Mbar	1.2	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	-9.6 ¹	Pass
Weighing Precipitation	$\leq \pm 10$	% input	7.7	Pass
Tipping Precipitation	$\leq \pm 10$	% input	-0.4	Pass

¹ Max percent error value of 9.6 within limit of 5% input and resolution, see audit.

Table 2-5. February 6, 2007 Supplemental Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
RM Young Wind System¹				
Wind Speed Torque	≤ 0.014	oz-in	0.007	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.01	Pass
High Wind Spd. Accuracy ($> 5\text{m/s}$)	$\leq \pm 5$	% input	0.4	Pass
Wind Direction Torque	≤ 11	g-cm	6.0	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.7	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	3.3	Pass
Weighing Precipitation	$\leq \pm 10$	% input	7.7	Pass

¹Instrument audited after replacement due to storm damage.

Table 2-6. September 2, 2007 Performance Audit Summary (CR10X)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	-0:02	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.32	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.68	Fail ¹
Air Temperature Difference	$\leq \pm 0.1$	°C	0.40	Fail ¹
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.4	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy ($>5\text{m/s}$)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.100	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	3.2	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.2	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	N/A ²	N/A
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.005	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.01	Pass
High Wind Spd. Accuracy ($>5\text{m/s}$)	$\leq \pm 5$	% input	1.2	Pass
Wind Direction Torque	≤ 11	g-cm	9.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	3.7	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.2	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	N/A ²	N/A
Barometric Pressure	$\leq \pm 3$	Mbar	-0.1	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	-8.7	Pass
Weighing Precipitation	$\leq \pm 10$	% input	7.7	Pass
Tipping Precipitation	$\leq \pm 10$	% input	N/A ²	N/A
Evaporation	$\leq \pm 10$	% input	5.2	Pass

¹Thermistors replaced after CR10X audit.

²Not re-tested until after DAS/sensor change.

³Max percent error value of 8.7 within limit of 5% input + resolution, see audit.

Table 2-7. September 3-4, 2007 Performance Audit Summary (CR1000)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	-1:00	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.10	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.10	Pass
Air Temperature Difference	$\leq \pm 0.1$	°C	0.00	Pass
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.2	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy ($>5\text{m/s}$)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.070	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	N/A ¹	N/A
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.6	Pass
Wind Direction Linearity	≤ 3	Degree	0.6	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	-1.2	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	<0.003	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy ($>5\text{m/s}$)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	9.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	N/A ¹	N/A
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.0	Pass
Wind Direction Linearity	≤ 3	Degree	1.4	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	-3.1	Pass
Barometric Pressure	$\leq \pm 3$	Mbar	-0.6	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	5.2 ²	Pass
Weighing Precipitation	$\leq \pm 10$	% input	6.6	Pass
Tipping Precipitation	$\leq \pm 10$	% input	-10.0 ³	Pass
Evaporation	$\leq \pm 10$	% input	3.5	Pass

¹New DAS/sensor, no as-found value.

²Max percent error value of 5.2 within limit of 5% input + resolution, see audit.

³Single point at 10 percent, five other readings at 1 percent to 6 percent error.

Table 2-6. February 5-6, 2008 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	-0:52	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.34	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.34	Fail ¹
Air Temperature Difference	$\leq \pm 0.1$	°C	0.00	Fail ¹
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.8	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.050	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	-4.1	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.0	Pass
Wind Direction Linearity	≤ 3	Degree	0.3	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	2.8	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.005	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	10.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	-4.3	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	3.3	Pass
Wind Direction Linearity	≤ 3	Degree	1.9	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	1.6	Pass
Barometric Pressure	$\leq \pm 3$	Mbar	0.0	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	-8.4 ¹	Pass
Weighing Precipitation	$\leq \pm 10$	% input	8.8	Pass
Tipping Precipitation	$\leq \pm 10$	% input	N/A ²	N/A

¹Max percent error value of 8.4 within limit of 5% input + resolution, see audit.

²Too cold to run tipping gauge drip tests.

3.0 Monitoring Data Network Summary

3.1 Air Quality Data Summary

Not applicable.

3.2 Meteorological Data Summary

3.2.1 Wind Speed (WS) and Wind Direction (WD) Climatology

Table 3-1 provides a statistical summary of Climatronics (CLM) and RM Young (RMY) wind speed measurements during the 2007 meteorological monitoring year at the Pebble 1 station. The mean hourly average wind speed during the 2007 monitoring year was 7.95 m/s and 8.18 m/s for the CLM and RMY sensors, respectively. Maximum hourly average wind speeds of 39.99 m/s and 37.87 m/s were measured by the CLM and RMY sensors, respectively, on January 30.

Table 3-2 provides the mean and maximum daily wind speeds at the Iliamna Airport, located approximately 30 km from the Pebble 1 station. During the monitoring year the mean daily average wind speed at the Iliamna airport was 3.95 m/s, while the maximum hourly average wind speed was 17.88 m/s, recorded on December 9.

Table 3-1. Average and Maximum Wind Speeds

Monitoring Period	Mean Hourly Average Wind Speed (m/s) (CLM)	Mean Hourly Average Wind Speed (m/s) (RMY)	Maximum Hourly Average Wind Speed (m/s) (CLM)	Maximum Hourly Average Wind Speeds (m/s) (RMY)
Quarter A	9.98	9.87	39.99	37.87
Quarter B	7.00	7.02	30.31	28.92
Quarter C	6.39	6.47	27.65	26.23
Quarter D	8.47	9.56	30.41	28.97
Monitoring Year	7.95	8.18	39.99	37.87

Figure 3-1 provides wind roses for the CLM and RMY wind instruments during the second monitoring year. Winds were predominantly from the northwest and southeast, other wind components are minor. Figures 3-2 and 3-3 present the quarterly wind roses for the CLM and RMY sensors, respectively. All of the quarterly wind roses are characterized by major wind components from the northwest and southeast. Quarter B and Quarter C wind roses exhibited other minor wind components from the north, east, south, west and southwest directions. The Quarter A and Quarter D wind roses indicate a lack of southwesterly winds during this period. Tables 3-3 through 3-7 are the annual and quarterly wind tables for the Climatronics wind measurements. Tables 3-8 through 3-12 are the annual and quarterly wind analysis tables for the RM Young wind measurements.

Table 3-2. Average and Maximum Wind Speeds at Iliamna Airport

Monitoring Period	Mean Daily Average Wind Speed (m/s)	Maximum Daily Average Wind Speed (m/s)
Quarter A	4.15	17.43
Quarter B	2.98	16.99
Quarter C	3.20	15.20
Quarter D	5.49	17.88
Monitoring Year	3.95	17.88

Figure 3-4 shows the 2007 monitoring year wind rose (derived from the Climatronics wind sensor measurements) superimposed over a map of the meteorological station and vicinity. The wind rose in Figure 3-4 is centered over the location of the Pebble 1 station.

Figure 3-1. 2007 Pebble 1 Station Wind Roses

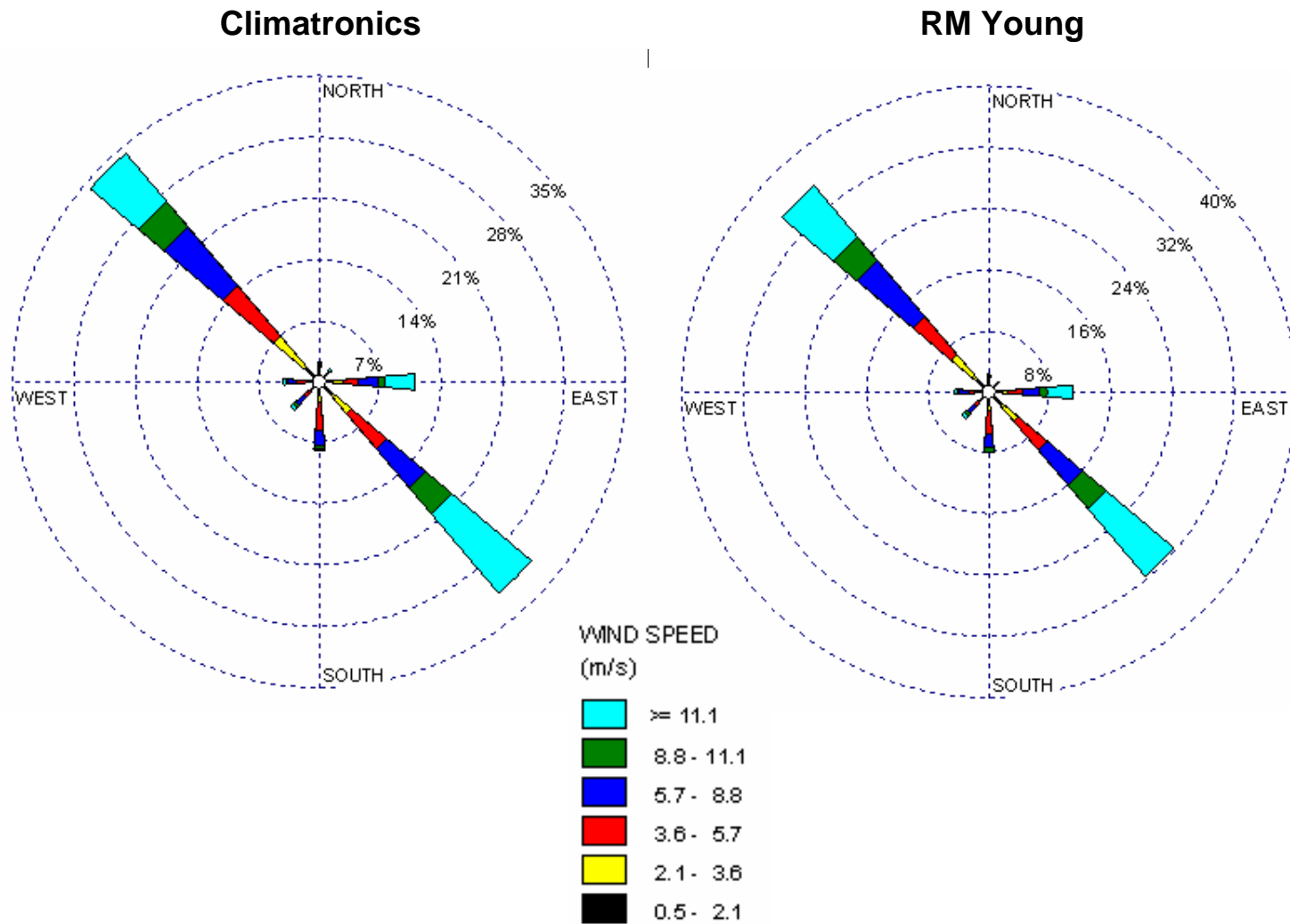


Figure 3-2. Quarterly Pebble 1 Station Wind Roses (Climatronics)

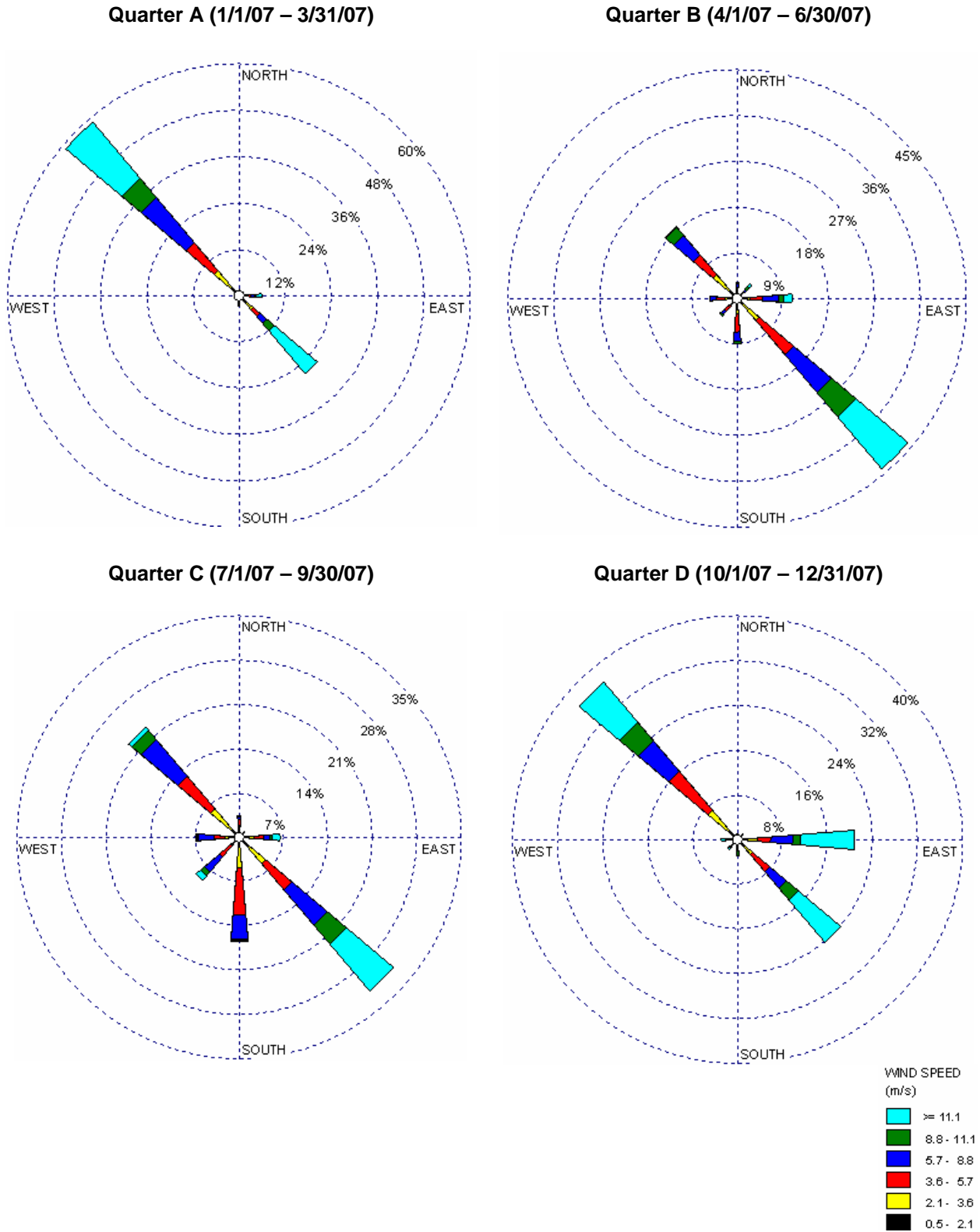
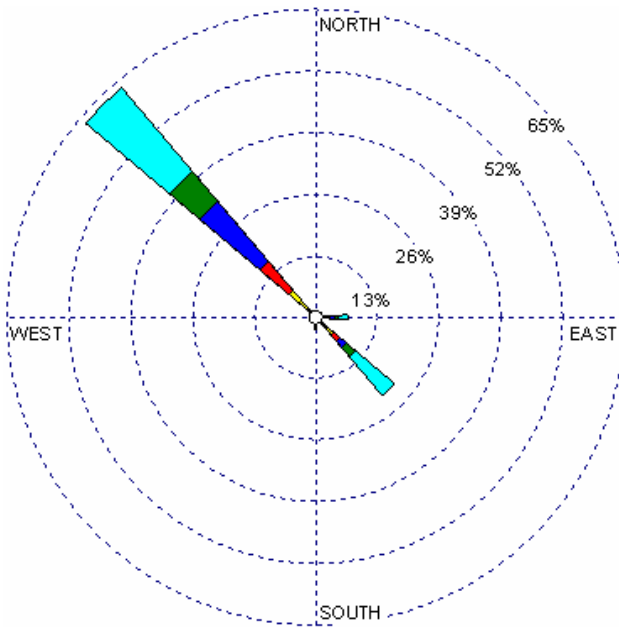
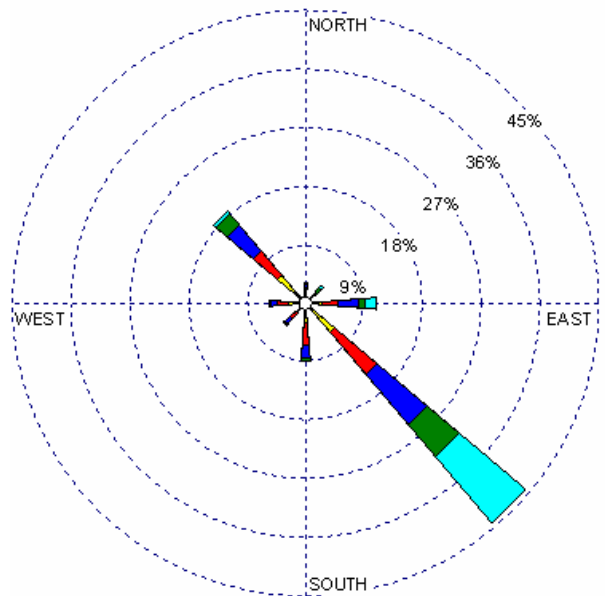


Figure 3-3. Quarterly Pebble 1 Station Wind Roses (RM Young)

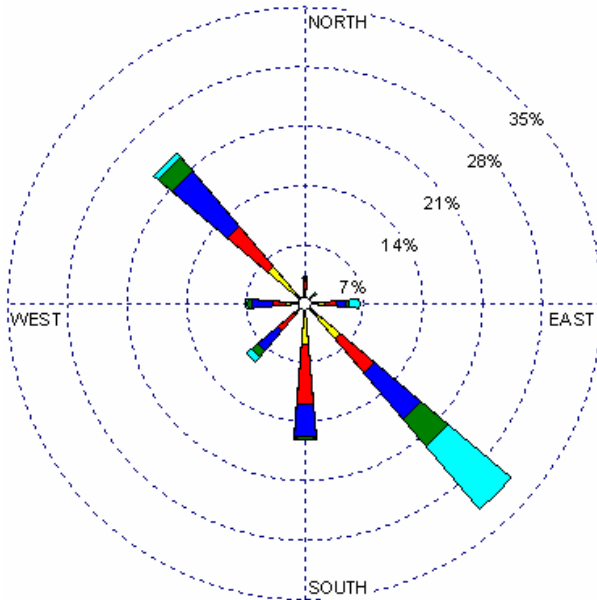
Quarter A (1/1/07 – 3/31/07)



Quarter B (4/1/07 – 6/30/07)



Quarter C (7/1/07 – 9/30/07)



Quarter D (10/1/07 – 12/31/07)

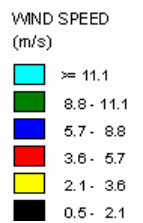
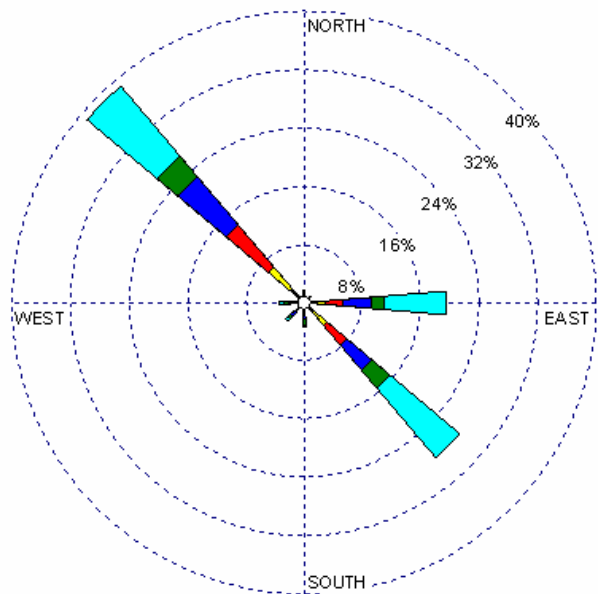


Table 3-3. 2007 Annual Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 1 (Climatronics)
Start Date: January 1, 2007

Run ID: 2007
End Date: December 31, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.64%	0.50%	0.55%	0.34%	0.15%	0.25%	2.43%
NE	0.38%	0.30%	0.27%	0.32%	0.47%	0.20%	1.94%
E	1.14%	1.65%	1.71%	2.29%	0.73%	3.47%	10.98%
SE	2.07%	2.88%	5.19%	5.80%	3.85%	11.87%	31.65%
S	0.89%	1.61%	3.21%	1.65%	0.44%	0.10%	7.90%
SW	0.54%	0.62%	1.24%	1.19%	0.36%	0.42%	4.37%
W	0.77%	0.85%	1.09%	1.03%	0.18%	0.27%	4.19%
NW	2.24%	4.69%	7.55%	8.72%	3.68%	7.23%	34.12%
Sub-Total:	8.67%	13.10%	20.80%	21.33%	9.86%	23.80%	97.57%
Calms (<0.5m/s):							2.40%
Total:							100.00%

Table 3-4. Quarter A Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 1 (Climatronics)

Run ID: Quarter A

Start Date: January 1, 2007

End Date: March 31, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.42%	0.05%	0.09%	0.23%	0.05%	0.79%	1.62%
NE	0.37%	0.00%	0.05%	0.14%	0.37%	0.00%	0.93%
E	1.44%	0.88%	0.93%	0.84%	0.42%	1.44%	5.94%
SE	2.88%	2.00%	2.41%	2.27%	2.60%	14.53%	26.69%
S	0.88%	0.46%	0.93%	0.19%	0.33%	0.09%	2.88%
SW	0.19%	0.05%	0.19%	0.33%	0.19%	0.46%	1.39%
W	0.37%	0.28%	0.37%	0.28%	0.09%	0.05%	1.44%
NW	2.74%	5.90%	9.33%	15.23%	6.55%	18.94%	58.68%
Sub-Total:	9.29%	9.61%	14.30%	19.50%	10.59%	36.30%	99.58%
Calms (<0.5m/s):							0.40%
Total:							100.00%

Table 3-5. Quarter B Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 1 (Climatronics)

Run ID: Quarter B

Start Date: April 1, 2007

End Date: June 30, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.60%	0.82%	0.92%	0.60%	0.41%	0.00%	3.34%
NE	0.41%	0.64%	0.64%	0.64%	0.92%	0.69%	3.94%
E	0.96%	1.65%	2.34%	3.34%	0.82%	1.69%	10.81%
SE	1.60%	4.17%	8.88%	9.62%	6.18%	13.37%	43.82%
S	0.92%	2.11%	3.66%	1.88%	0.46%	0.00%	9.02%
SW	0.87%	1.05%	1.42%	1.01%	0.23%	0.09%	4.67%
W	1.01%	1.60%	1.65%	1.05%	0.09%	0.00%	5.40%
NW	2.34%	3.89%	5.13%	5.04%	2.01%	0.23%	18.64%
Sub-Total:	8.70%	15.93%	24.63%	23.17%	11.13%	16.07%	99.63%
Calms (<0.5m/s):							0.35%
Total:							100.00%

Table 3-6. Quarter C Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 1 (Climatronics)

Run ID: Quarter C

Start Date: July 1, 2007

End Date: September 30, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.96%	0.92%	1.10%	0.23%	0.05%	0.23%	3.48%
NE	0.41%	0.37%	0.05%	0.41%	0.14%	0.00%	1.37%
E	0.82%	1.69%	1.37%	1.10%	0.23%	1.28%	6.50%
SE	2.06%	3.53%	5.36%	7.28%	3.89%	9.62%	31.75%
S	1.42%	3.53%	7.38%	3.76%	0.23%	0.14%	16.45%
SW	0.73%	0.92%	2.52%	3.02%	0.87%	0.87%	8.93%
W	1.10%	1.28%	1.69%	2.34%	0.23%	0.23%	6.87%
NW	1.65%	4.31%	6.69%	7.60%	1.88%	0.64%	22.77%
Sub-Total:	9.16%	16.54%	26.16%	25.74%	7.51%	13.01%	98.12%
Calms (<0.5m/s):							1.80%
Total:							100.00%

Table 3-7. Quarter D Wind Rose Analysis Table (Climatronics)

Station ID: Pebble 1 (Climatronics)

Run ID: Quarter D

Start Date: October 1, 2007

End Date: December 31, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.56%	0.19%	0.09%	0.28%	0.09%	0.00%	1.22%
NE	0.33%	0.19%	0.33%	0.09%	0.47%	0.09%	1.50%
E	1.36%	2.39%	2.20%	3.88%	1.45%	9.55%	20.82%
SE	1.73%	1.78%	4.02%	3.93%	2.67%	9.97%	24.10%
S	0.33%	0.28%	0.80%	0.75%	0.75%	0.19%	3.09%
SW	0.37%	0.47%	0.80%	0.37%	0.14%	0.23%	2.39%
W	0.61%	0.23%	0.61%	0.42%	0.33%	0.80%	2.99%
NW	2.25%	4.68%	9.12%	7.07%	4.35%	9.31%	36.78%
Sub-Total:	7.53%	10.20%	17.97%	16.80%	10.25%	30.14%	92.89%
Calms (<0.5m/s):							6.79%
Total:							100.00%

Table 3-8. 2007 Annual Wind Rose Analysis Table (RM Young)

Station ID: Pebble 1 (RM Young)
Start Date: January 1, 2007

Run ID: 2007
End Date: December 31, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.66%	0.52%	0.60%	0.31%	0.12%	0.20%	2.40%
NE	0.47%	0.26%	0.26%	0.29%	0.54%	0.20%	2.02%
E	1.16%	1.41%	1.83%	2.34%	0.89%	3.34%	10.98%
SE	2.33%	2.85%	4.87%	5.96%	4.06%	11.59%	31.65%
S	0.98%	1.58%	3.12%	1.75%	0.49%	0.09%	8.01%
SW	0.53%	0.65%	1.33%	1.33%	0.46%	0.46%	4.75%
W	0.83%	0.87%	1.06%	1.19%	0.29%	0.27%	4.52%
NW	2.32%	4.10%	6.55%	9.57%	3.99%	8.79%	35.32%
Sub-Total:	9.28%	12.23%	19.61%	22.74%	10.84%	24.95%	99.65%
Calms (<0.5m/s):							0.34%
Total:							100.00%

Table 3-9. Quarter A Wind Rose Analysis Table (RM Young)

Station ID: Pebble 1 (RM Young)

Run ID: Quarter A

Start Date: January 1, 2007

End Date: March 31, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.35%	0.00%	0.15%	0.15%	0.00%	0.50%	1.16%
NE	0.35%	0.00%	0.00%	0.15%	0.40%	0.00%	0.91%
E	1.51%	0.71%	1.06%	1.06%	0.55%	1.92%	6.81%
SE	3.53%	1.46%	1.87%	1.77%	2.42%	10.74%	21.79%
S	0.81%	0.35%	0.81%	0.40%	0.40%	0.05%	2.82%
SW	0.10%	0.05%	0.20%	0.35%	0.25%	0.45%	1.41%
W	0.35%	0.30%	0.35%	0.35%	0.10%	0.05%	1.51%
NW	2.72%	4.84%	7.87%	16.64%	8.22%	23.00%	63.29%
Sub-Total:	9.73%	7.72%	12.30%	20.88%	12.36%	36.71%	99.70%
Calms (<0.5m/s):							0.27%
Total:							100.00%

Table 3-10. Quarter B Wind Rose Analysis Table (RM Young)

Station ID: Pebble 1 (RM Young)

Run ID: Quarter B

Start Date: April 1, 2007

End Date: June 30, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.64%	0.92%	0.92%	0.50%	0.32%	0.00%	3.30%
NE	0.46%	0.50%	0.69%	0.50%	1.01%	0.69%	3.85%
E	1.19%	1.56%	2.29%	3.25%	0.96%	1.74%	10.99%
SE	1.83%	4.08%	8.47%	10.03%	6.36%	13.32%	44.09%
S	0.92%	2.11%	3.62%	1.83%	0.50%	0.00%	8.97%
SW	0.87%	1.01%	1.42%	0.96%	0.23%	0.09%	4.58%
W	1.14%	1.60%	1.69%	1.10%	0.09%	0.00%	5.63%
NW	2.43%	3.39%	4.81%	5.17%	2.29%	0.46%	18.54%
Sub-Total:	9.48%	15.16%	23.90%	23.35%	11.77%	16.30%	99.95%
Calms (<0.5m/s):							0.04%
Total:							100.00%

Table 3-11. Quarter C Wind Rose Analysis Table (RM Young)

Station ID: Pebble 1 (RM Young)

Run ID: Quarter C

Start Date: July 1, 2007

End Date: September 30, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.86%	0.86%	1.00%	0.27%	0.05%	0.23%	3.27%
NE	0.77%	0.36%	0.14%	0.36%	0.23%	0.00%	1.86%
E	0.95%	1.45%	1.36%	1.18%	0.27%	1.27%	6.50%
SE	2.18%	3.41%	5.18%	7.18%	4.13%	9.72%	31.80%
S	1.73%	3.23%	6.95%	3.91%	0.23%	0.09%	16.13%
SW	0.73%	1.00%	2.59%	3.09%	0.91%	0.82%	9.13%
W	1.23%	1.09%	1.54%	2.50%	0.41%	0.23%	7.00%
NW	1.59%	4.27%	6.22%	8.41%	2.14%	0.73%	23.35%
Sub-Total:	10.04%	15.67%	24.99%	26.90%	8.36%	13.09%	99.05%
Calms (<0.5m/s):							0.86%
Total:							100.00%

Table 3-12. Quarter D Wind Rose Analysis Table (RM Young)

Station ID: Pebble 1 (RM Young)

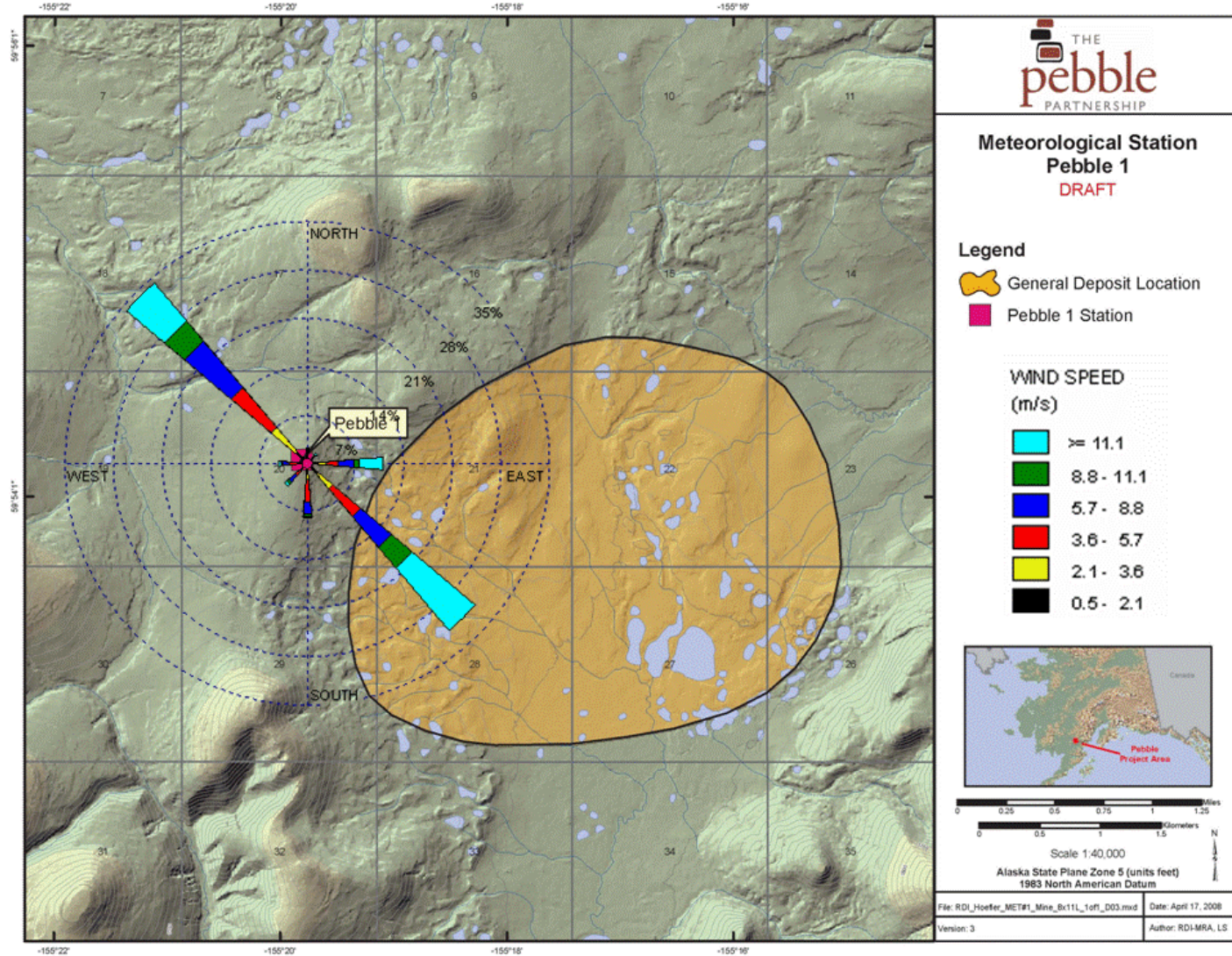
Run ID: Quarter D

Start Date: October 1, 2007

End Date: December 31, 2007

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.75%	0.23%	0.28%	0.28%	0.09%	0.09%	1.73%
NE	0.28%	0.14%	0.19%	0.14%	0.51%	0.09%	1.36%
E	1.03%	1.87%	2.57%	3.79%	1.78%	8.42%	19.47%
SE	1.87%	2.29%	3.65%	4.45%	3.14%	12.54%	27.94%
S	0.42%	0.47%	0.80%	0.70%	0.84%	0.23%	3.46%
SW	0.37%	0.47%	0.98%	0.80%	0.42%	0.47%	3.51%
W	0.56%	0.42%	0.56%	0.70%	0.56%	0.80%	3.60%
NW	2.57%	3.98%	7.44%	8.70%	3.70%	12.45%	38.84%
Sub-Total:	7.86%	9.87%	16.47%	19.56%	11.04%	35.10%	99.91%
Calms (<0.5m/s):							0.08%
Total:							100.00%

Figure 3-4. 2007 Wind Rose Superimposed on Site Map



3.2.2 Temperature Climatology

Tables 3-13 and 3-14 provides maximum and minimum daily mean temperatures, monthly mean temperatures, and maximum and minimum hourly average temperatures for the 2-meter and 10-meter temperature measurements, respectively. Daily average temperatures at the Pebble 1 station ranged from 22.8°C on August 12 to -33.8°C on January 7. The average 2-meter temperature during the monitoring year was -0.7°C, which is less than the mean temperature of 1.78°C observed at the Iliamna Airport during the same time span.

Figure 3-5 provides a graph of the 2-meter and 10-meter hourly average temperatures. There was considerable monthly temperature variation throughout the late-autumn and winter months. The coldest temperatures were observed during January. Figure 3-5 also includes a plot of average daily temperatures recorded at the Iliamna Airport meteorological monitoring station.

Figure 3-6 is a plot of the vertical temperature difference (the difference between 10-m and 2-m temperature values) during the monitoring year. The greatest positive vertical temperature difference was 2.6°C measured on September 2. The greatest negative vertical temperature difference was -1.8°C measured on September 5.

Table 3-13. 2-Meter Temperature Summary

Period	Maximum Daily Mean Temperature (°C)	Minimum Daily Mean Temperature (°C)	Monthly Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
January 2007	2.42	-32.43	-12.19	5.42	-33.80
February 2007	2.80	-21.56	-7.59	6.37	-23.27
March 2007	-1.78	-26.58	-17.53	-0.07	1.62
Quarter A	2.80	-32.43	-12.60	6.37	-33.80
April 2007	4.98	-2.18	0.59	9.24	-5.05
May 2007	6.59	0.73	4.03	12.21	-1.87
June 2007	16.00	4.76	8.36	21.75	1.10
Quarter B	16.00	-2.18	4.32	21.75	-5.05
July 2007	16.89	6.71	11.14	21.36	6.09
August 2007	17.37	8.33	11.16	22.18	6.55
September 2007	9.67	3.17	6.67	16.10	1.64
Quarter C	17.37	3.17	9.70	22.18	1.64
October 2007	3.24	-6.58	-1.97	5.80	-9.09
November 2007	3.52	-16.21	-3.07	4.14	-18.50
December 2007	0.40	-26.38	-9.28	3.37	-27.43
Quarter D	3.52	-26.38	-4.64	5.80	-27.43
Monitoring Year	17.37	-32.43	-0.72	22.18	-33.80

Table 3-14. 10-Meter Temperature Summary

Period	Maximum Daily Mean Temperature (°C)	Minimum Daily Mean Temperature (°C)	Monthly Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
January 2007	-1.93	-31.87	-17.36	-1.61	-33.30
February 2007	N/A	N/A	N/A	N/A	N/A
March 2007	N/A	N/A	N/A	N/A	N/A
Quarter A	N/A	-31.87	-17.36	-1.61	-33.30
April 2007	N/A	N/A	N/A	N/A	N/A
May 2007	N/A	N/A	N/A	N/A	N/A
June 2007	N/A	N/A	N/A	N/A	N/A
Quarter B	N/A	N/A	N/A	N/A	N/A
July 2007	N/A	N/A	N/A	N/A	N/A
August 2007	11.32	10.64	10.93	14.30	7.57
September 2007	9.62	3.07	6.67	17.26	1.75
Quarter C	11.32	0.00	6.90	17.26	1.75
October 2007	3.24	-6.51	-1.84	5.19	-9.04
November 2007	3.86	-15.74	-2.85	4.50	-17.71
December 2007	1.00	-25.92	-9.03	3.74	-27.09
Quarter D	3.86	-25.92	-4.44	5.19	-27.09
Monitoring Year	11.32	-31.87	-3.35	17.26	-33.30

Figure 3-5. Hourly Average 2-Meter and 10-Meter Temperatures

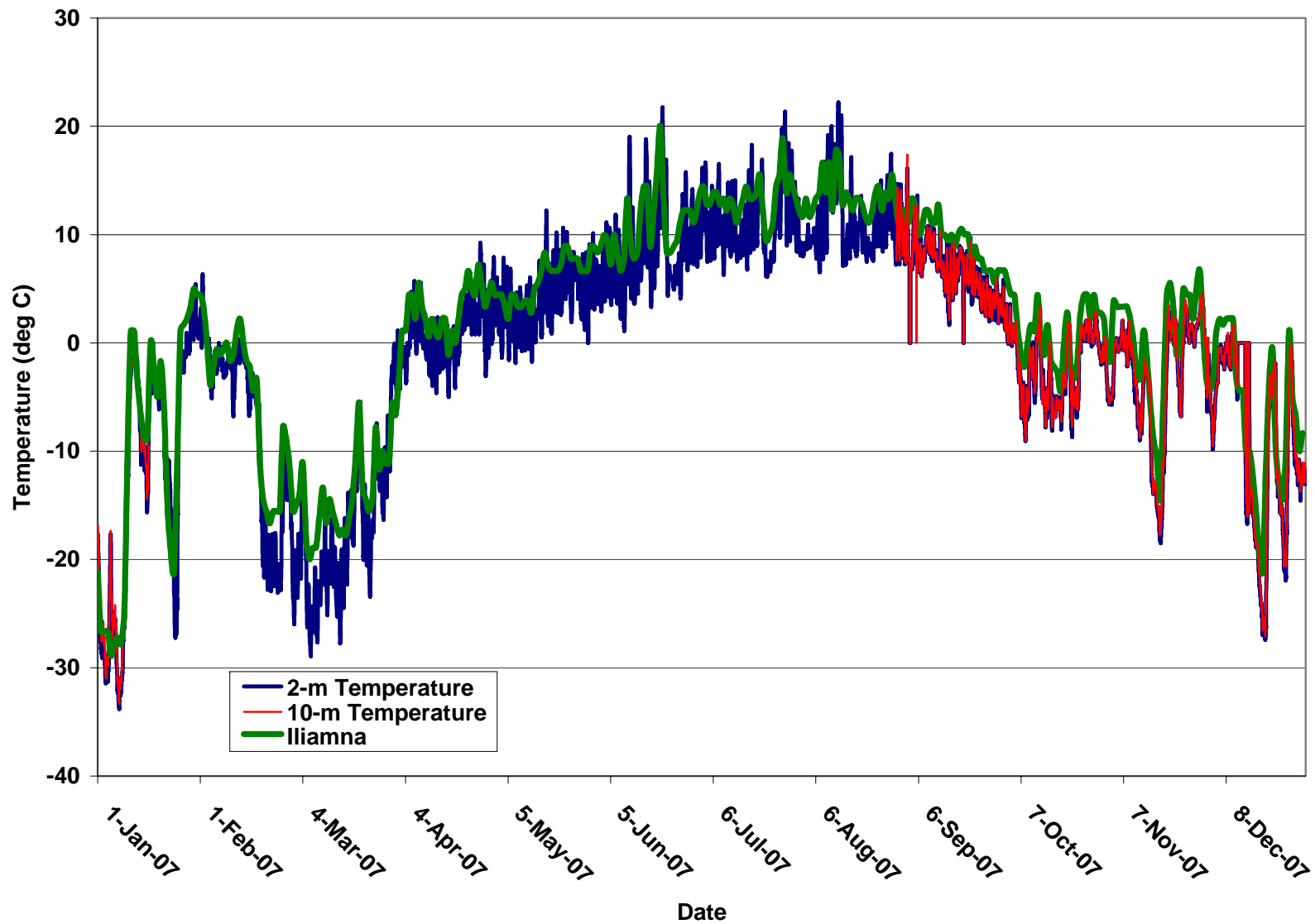
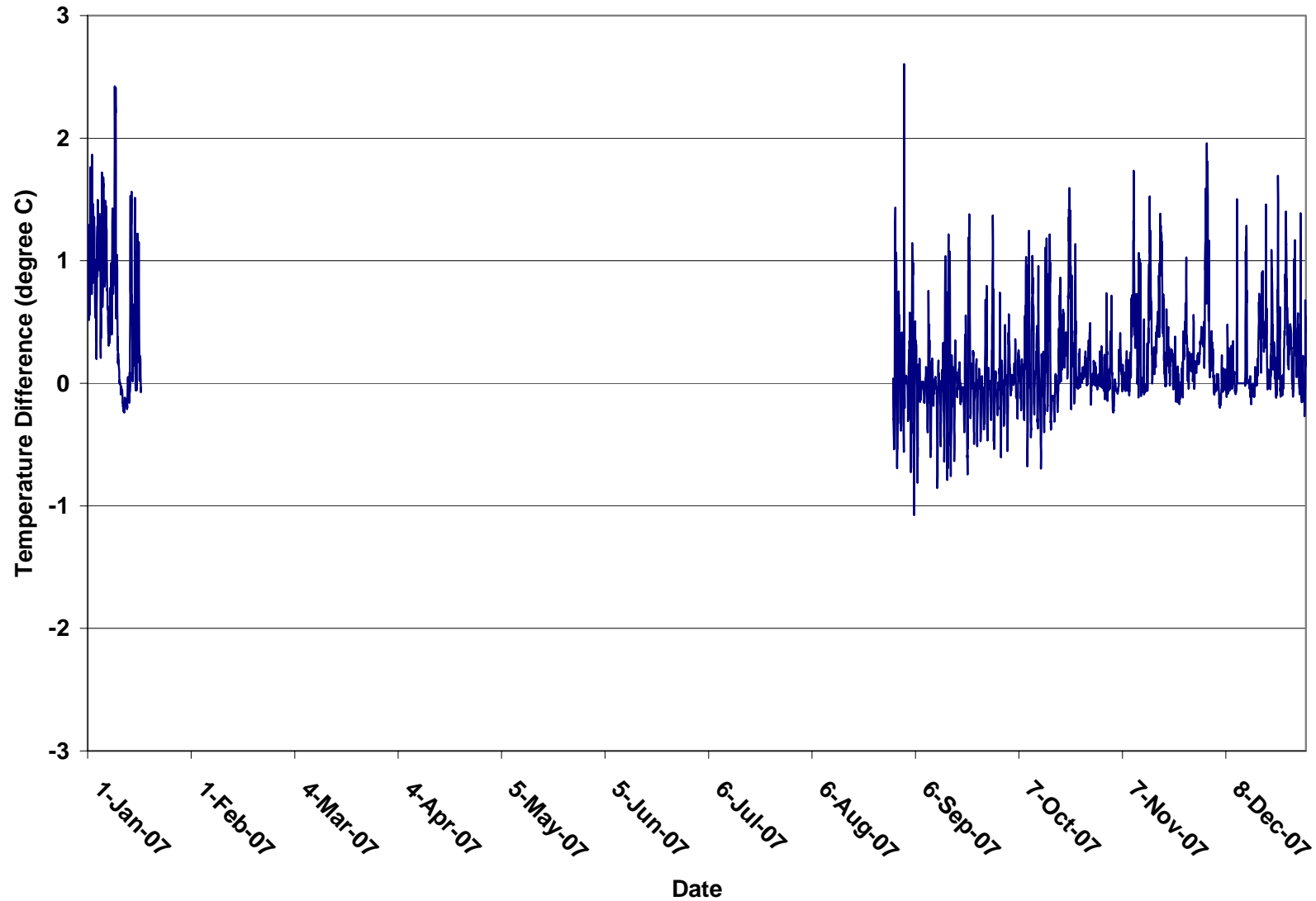


Figure 3-6. Hourly Average Vertical Temperature Difference



3.3.3 Other Meteorological Parameters

Other measured meteorological parameters include relative humidity, barometric pressure, solar radiation, precipitation, and evaporation. These parameters are summarized in Table 3-15.

Figure 3-7 is a plot of the annual hourly average relative humidity. The mean relative humidity at the Pebble 1 station was 83.9 percent. The minimum relative humidity was 26.2 percent measured on March 31. The mean relative humidity at the Iliamna Airport meteorological station for the monitoring period was 75.5 percent.

Figure 3-8 is a plot of the annual hourly instantaneous barometric pressure. Barometric pressure varied from a minimum of 911 mb on October 30 to a maximum of 973 mb observed on March 31. The mean barometric pressure during the monitoring year was 948 mb. The mean barometric pressure at the Iliamna Airport meteorological station for the monitoring period was 1,007 mb.

Figure 3-9 is a plot of the annual hourly average solar radiation. The maximum hourly average solar radiation was 897 W/m² recorded on June 27. The mean hourly average solar radiation for the monitoring year was 100 W/m².

Figure 3-10 is a graph of total daily precipitation and the cumulative precipitation during the 2007 monitoring year. The highest maximum total daily precipitation was 33.0 mm measured on September 8. The maximum monthly precipitation was 256.5 mm during September. The cumulative precipitation during the monitoring year was 879 mm. Daily winter precipitation data (October through April) should be closely examined before use because of snowfall adaptors may influence daily totals.

A table of total daily evaporation is provided in Appendix D. The maximum total monthly evaporation at the Pebble 1 station was 71.5 mm in June.

Comprehensive hourly data tables of temperature, vertical temperature difference, wind speed, wind direction, wind sigma, relative humidity, barometric pressure, solar radiation, and precipitation are also provided in Appendix D.

Table 3-15. Relative Humidity, Barometric Pressure, and Solar Radiation Summary

Period	Mean Relative Humidity (%)	Minimum Relative Humidity (%)	Mean Barometric Pressure (mbar)	Minimum Barometric Pressure (mbar)	Maximum Barometric Pressure (mbar)	Mean Solar Radiation (W/m^2)	Maximum Solar Radiation (W/m^2)
January 2007	87.90	42.81	943.94	916.68	971.33	14.28	197.00
February 2007	81.54	43.28	950.22	931.48	970.30	53.29	387.20
March 2007	69.94	26.18	948.76	915.93	973.15	138.09	707.00
Quarter A	79.74	26.18	947.56	915.93	973.15	69.06	707.00
April 2007	80.03	32.34	942.89	914.68	971.93	162.19	733.00
May 2007	79.13	41.11	953.33	943.31	962.90	183.15	805.00
June 2007	80.03	32.65	955.24	940.91	968.18	192.14	847.00
Quarter B	79.72	32.34	950.52	914.68	971.93	179.20	847.00
July 2007	83.90	48.62	955.65	947.23	963.46	157.51	803.00
August 2007	85.70	43.17	956.38	936.49	970.21	129.27	732.00
September 2007	91.56	54.21	949.15	929.37	960.94	73.02	663.00
Quarter C	86.99	43.17	953.79	929.37	970.21	120.62	803.00
October 2007	89.27	49.40	939.79	911.07	960.08	54.12	440.00
November 2007	91.45	50.48	939.06	916.43	970.39	16.82	200.20
December 2007	86.17	40.26	941.40	922.20	962.28	8.61	129.80
Quarter D	89.03	40.26	940.05	911.07	970.39	27.23	440.00
Monitoring Year	83.86	26.18	948.04	911.07	973.15	99.55	847.00

Figure 3-7. Hourly Average Relative Humidity

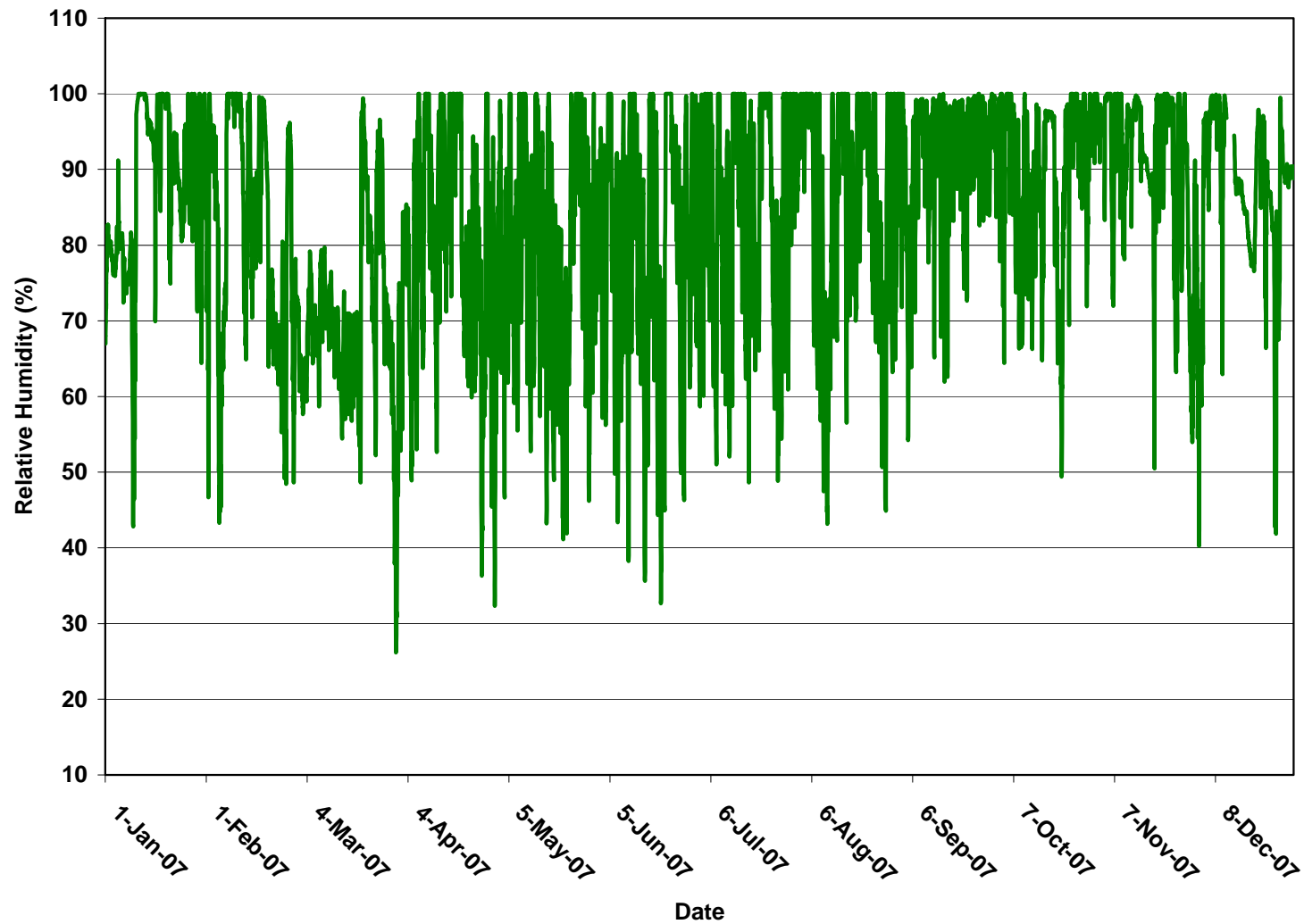


Figure 3-8. Barometric Pressure

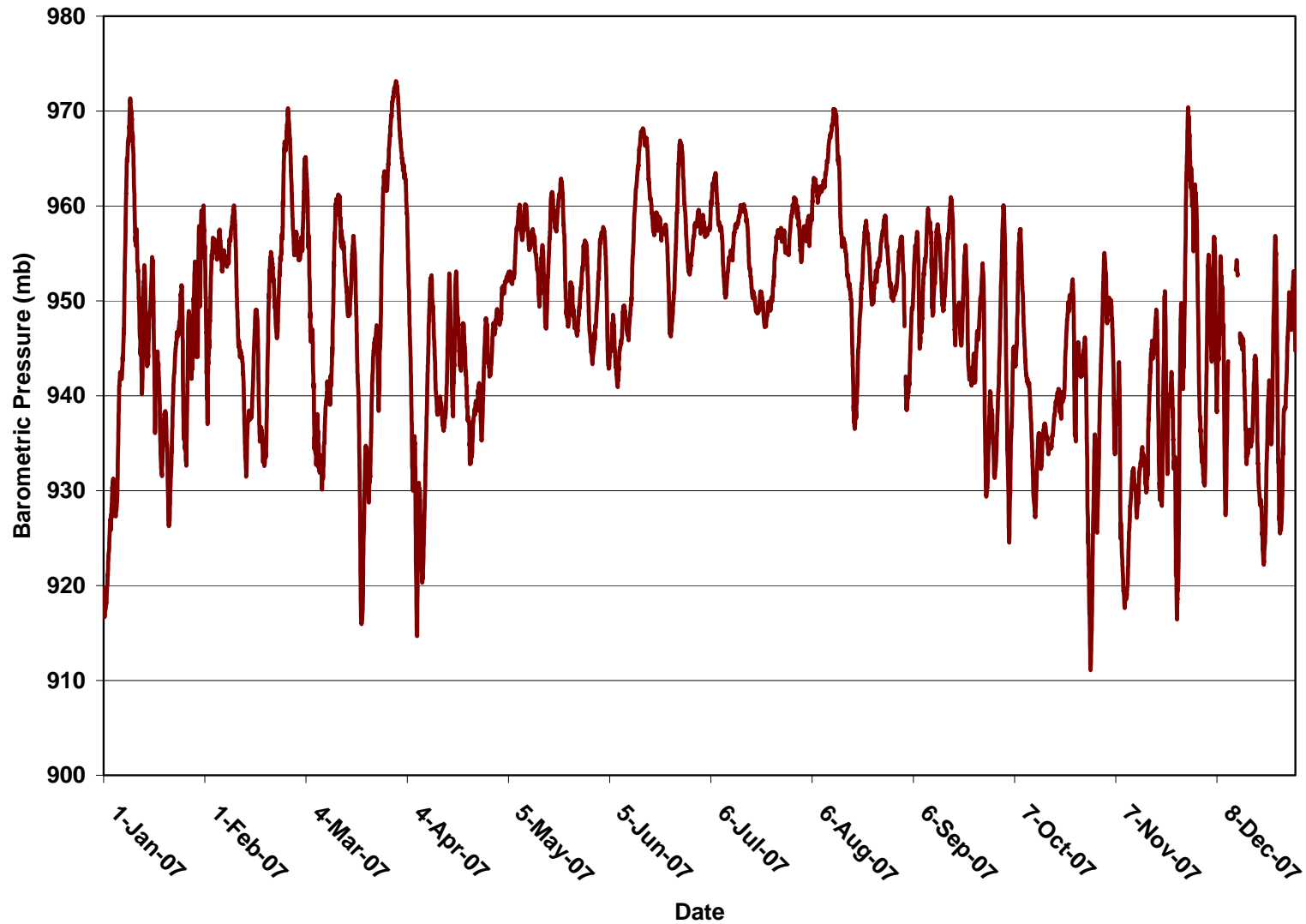


Figure 3-9. Hourly Average Solar Radiation

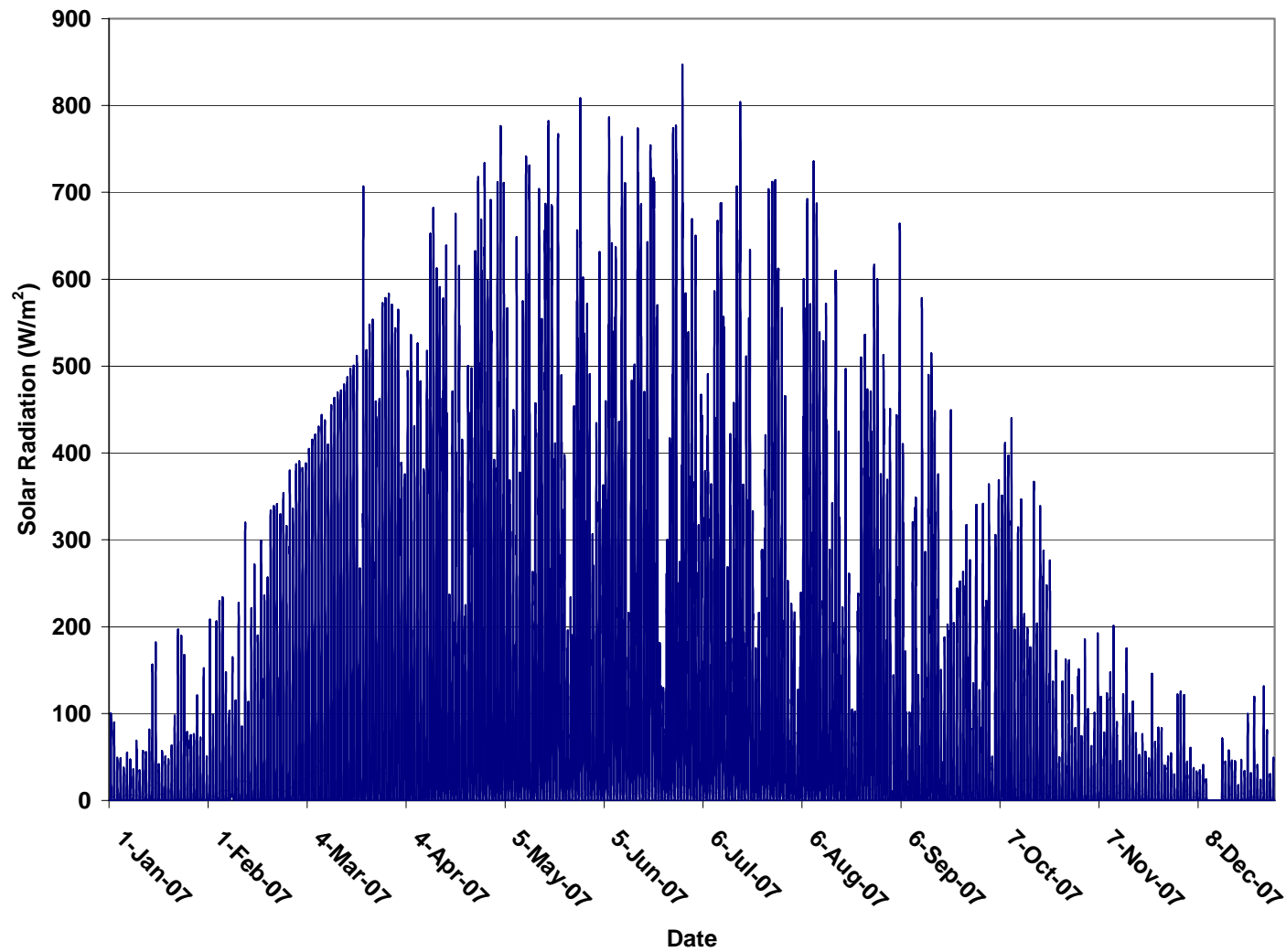
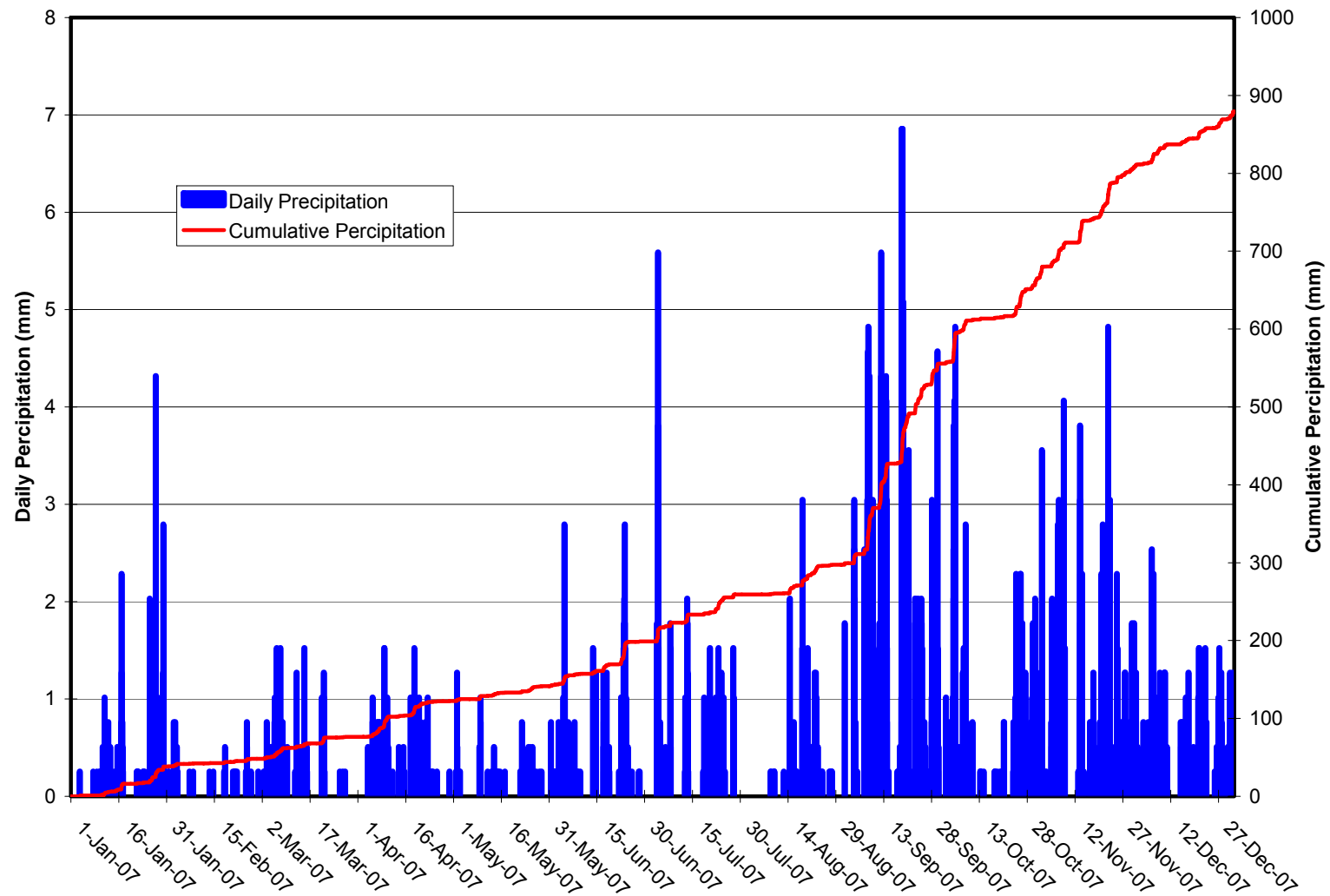


Figure 3-10. Hourly and Cumulative Precipitation



4.0 References

Hoefler Consulting Group, Inc., *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program*, Iliamna, Alaska, August 2006.

U.S. Environmental Protection Agency (EPA), *On-Site Meteorological Program Guidance for Regulatory Modeling Applications*, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-450/4-87-013, Revised August 1995.

U.S. Environmental Protection Agency (EPA), *Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)*, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-450/4-87-007, 1987.

U.S. Environmental Protection Agency (EPA), *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-454/R-99-005, 2000.

Yamartino, R.J., *A Comparison of Several "Single-Pass" Estimators of the Standard Deviation of Wind Direction*, J. Climate Appl. Meteor., Vol. 23, pp. 1362-1366, 1984.

Appendix A

Data Processing Specifications and Statistical Formulae

A.1 Data Recovery Percentage

Data completeness for meteorological monitoring methods was calculated assuming a minimum of 90 percent valid hourly average data to calculate quarterly average data completeness and a minimum of 90 percent quarterly data completeness for four consecutive quarters.

Quarterly data completeness (DC_i) was determined using the following equation:

$$DC_i = h_v/h_i \times 100$$

Where: h_v = number of hours of valid data actually collected
 h_i = number of possible valid hours of data collection during the monitoring period

Table A-1. Station Performance Summary – Data Recovery 2007

Period	Meteorological Parameters													
	2-m Temp	10-m Temp ⁴	ΔT^4	WS (CLM) ¹	WD (CLM)	Sigma (CLM)	WS (RMY) ²	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
January 2007	99.3%	51.6%	51.6%	99.3%	99.3%	99.3%	94.6%	94.6%	94.6%	100%	100%	100%	99.7%	N/A ³
February 2007	100%	0.0%	0.0%	100%	100%	100%	79.8%	79.8%	79.8%	100%	100%	100%	99.3%	N/A
March 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	N/A
Quarter A	99.8%	17.8%	17.8%	99.8%	99.8%	99.8%	91.9%	91.9%	91.9%	100%	100%	100%	99.6%	N/A
April 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
May 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	99.7%
June 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Quarter B	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.9%	99.9%
July 2007	100%	0.0%	0.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
August 2007	100%	5.6%	5.6%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%	99.7%
September	98.9%	98.8%	98.8%	96.5%	99.0%	99.0%	99.0%	99.0%	99.0%	98.9%	98.9%	99.0%	98.3%	99.0%
Quarter C	99.6%	34.1%	34.1%	98.9%	99.7%	99.7%	99.7%	99.7%	99.7%	99.6%	99.6%	99.7%	99.4%	99.6%
October 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.6%	100%
November 2007	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
December 2007	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	90.3%	N/A
Quarter D	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.7%	96.6%	100%
Monitoring Year	99.0%	37.4%	37.4%	98.8%	99.1%	99.1%	97.1%	97.1%	97.1%	99.1%	99.1%	99.1%	98.9%	100%

¹ CLM = Climatronics wind speed and wind direction sensor.

² RMY = R.M. Young wind speed and wind direction sensor.

³ Not applicable. The evaporation gauge was in commission from May 2 to October 12.

⁴ Data captured in the previous monitoring year can fulfill modeling needs for air permitting purposes.

A.2 Data Bias Correction Using Calibration Information

Not Applicable.

A.3 Estimation of Pasquill-Gifford Stability Categories

Not Applicable.

Appendix B

Precision Data

Not Applicable.

Appendix C

Accuracy Data

**Pebble 1
PSD Meteorological
Monitoring Station**

January 2007

**Quality Assurance
Performance Audit**



for the

**Pebble Project
Meteorological
Monitoring Program
Iliamna, Alaska**

prepared for

Northern Dynasty Mines, Inc.

**Pebble 1 PSD Meteorological Monitoring Station
January 2007
Quality Assurance Performance Audit**

Prepared for:

**Northern Dynasty Mines, Inc.
Anchorage, Alaska**

Prepared by:

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- A PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP**
- B AUDIT EQUIPMENT CALIBRATION CERTIFICATES**

1.0 INTRODUCTION

Hoefer Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 1 Station (Pebble 1) located near the proposed mine site.

Pebble 1 is located just west of the mine ore body on top of a gentle, windswept knoll at about 1,550 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. A weighing precipitation gauge is located approximately 75 feet west of the tower and an evaporation pan, collocated with a tipping precipitation gauge, is located roughly 125 feet south of the tower. Between the tower and the precipitation gauges is a 6' by 8' insulated building which houses the datalogger and power supply system. Pebble 1 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m²): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation 1 (mm H₂O): Met-One Model 370 Tipping Precipitation Gauge
- Precipitation 2 (mm H₂O): ETI Model Noah II Weighing Precipitation Gauge
- Evaporation (mm H₂O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as a quantitative review of the Pebble 1 station. To that end, a Performance Audit was undertaken in order to demonstrate that the equipment installed at the meteorological monitoring station is operating correctly and meets the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 PERFORMANCE AUDIT

2.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 2-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 2-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	$\leq \pm 5:00$ minutes from AST
Temperature Accuracy	Collocated NIST thermistor	$\leq \pm 0.5$ °C
Temperature Difference	Collocated NIST thermistor	$\leq \pm 0.1$ °C
Relative Humidity	Collocated NIST RH sensor	$\leq \pm 1.5$ °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	$\leq \pm 0.2$ m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	$\leq \pm 5^\circ$ from true azimuth
Wind Direction Accuracy	Linearity tester	$\leq \pm 5^\circ$ per audit point
Wind Direction Linearity	Linearity tester	$\leq 3^\circ$ mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	$\leq \pm 3$ mbar
Solar Radiation	Collocated NIST sensor	$\leq \pm 5\%$ of input+resolutuion ¹
Precipitation	Calibrated water volume	$\leq \pm 10\%$ of input
Evaporation	Measured water level	$\leq \pm 10\%$ of input

1. This audit limit is modified from PSD standard, as discussed below.

2.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

2.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snugly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of $\pm 0.5^{\circ}\text{C}$. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of $\pm 0.1^{\circ}\text{C}$.

2.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit; instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of $\pm 1.5^{\circ}\text{C}$ dew point.

2.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

2.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed $\pm 5^{\circ}$ per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of known bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of $\pm 5^\circ$ per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument starting torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

2.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ± 3 mbar.

2.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is $\pm 5\%$ of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of $\pm 5\%$ of observed + **EPA minimum instrument resolution (10W/m^2)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0 ± 0.05 .

2.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run.

The ETI weighing gauge is also audited by adding measured water volumes to the gauge opening using the calibrated bottle from the Nova Lynx Model 260-2595 Rain Gauge Calibrator. The DAS reading is recorded at the beginning of the test and after every $1/2"$ to $1"$ pour thereafter, up to the limit of the gauge. With both gauges, the percent difference between the predicted audit value and the DAS value is compared to the PSD limit of $\pm 10\%$.

2.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of $\pm 10\%$ of input and the slope of resultant line has a limit of 1.0 ± 0.1 .

2.2 Performance Audit Results

The performance audit was conducted at the Pebble 1 station on January 17, 2007, with Dominic Shallies of HCG assisting. Supplemental audits of some instruments were performed during October of 2006 and February of 2007. On October 11-13, 2006 the evaporation pan and precipitation gauges were audited prior to winterization. On February 6, 2007 the RM Young wind sensor replaced and audited after being destroyed in a wind storm on January 30, 2007.

All sensors were challenged with certified audit equipment and yielded errors below the PSD limits. Table 2-2 contains summary data from the January 2007 audit and Tables 2-3 and 2-4 summarize the supplemental performance audits. Complete audit reports and audit equipment calibration certificates are contained in Appendix A and Appendix B respectively.

2.3 Performance Audit Recommendations

- None.

Table 2-2 Pebble 1 January 17, 2007 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	0:01	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.48	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.48	Pass
Air Temperature Difference	$\leq \pm 0.1$	°C	0.00	Pass
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	-0.5	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	0.004	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy ($> 5\text{m/s}$)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.090	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	1.7	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.1	Pass
Wind Direction Linearity	≤ 3	Degree	0.4	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	2.2	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	<0.003	Pass
Low Wind Spd. Accuracy ($\leq 5\text{m/s}$)	$\leq \pm 0.2$	m/s	0.01	Pass
High Wind Spd. Accuracy ($> 5\text{m/s}$)	$\leq \pm 5$	% input	0.8	Pass
Wind Direction Torque	≤ 11	g-cm	8.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	-2.1	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.6	Pass
Wind Direction Linearity	≤ 3	Degree	0.8	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	-2.1	Pass
Barometric Pressure	$\leq \pm 3$	Mbar	1.2	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	-9.6 ¹	Pass
Tipping Precipitation	$\leq \pm 10$	% input	-0.4	Pass
Weighing Precipitation	$\leq \pm 10$	% input	7.7	Pass

1. Max % error value of 9.6 within limit of 5% input + resolution, see audit.

Table 2-3 Pebble 1 Oct. 11-13, 2006 Supplemental Performance Audit Summary

Parameter ¹	Limit	Units	Max Err	Status
Tipping Precipitation (Pre-Calibration)	$\leq \pm 10$	% input	-5.3	Pass
Tipping Precipitation (Post-calibration)	$\leq \pm 10$	% input	2.4	Pass
Weighing Precipitation	$\leq \pm 10$	% input	8.9	Pass
Evaporation	$\leq \pm 10$	% input	-2.6	Pass

1. Gauges audited prior to winterizing.

Table 2-4 Pebble 1 February 6, 2007 Supplemental Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
RM Young Wind System ¹				
Wind Speed Torque	≤ 0.014	oz-in	0.007	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.01	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.4	Pass
Wind Direction Torque	≤ 11	g-cm	6.0	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.7	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	3.3	Pass
Weighing Precipitation	$\leq \pm 10$	% input	7.7	Pass

1. Instrument audited after replacement due to storm damage.

3.0 REFERENCES

"Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program", Hoefler Consulting Group, Inc.

"Quality Assurance Manual for Ambient Air Quality Monitoring" ADEC, August 1996.

"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)", ADEC, September 2004.

"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring", EPA-40 CFR Part 58, Appendix B, November 2004.

"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

"Meteorological Monitoring Guidance for Regulatory Modeling Applications", EPA-454/R-99-005, February 2000.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

APPENDIX A
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Jan 17, 2007

DAS TIME AUDIT

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: None.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
11:31:00	11:31:01	00:01	PASS

TEMPERATURE SENSORS & AT AUDIT

Lower Height: 2.0 Meters Upper Height: 9.7 Meters

2-M Thermistor: Make: Met One Model: 062MP S.N.#: E3383 # 1/2 Range: -50 to 50 °C
10-M Thermistor: Make: Met One Model: 062MP S.N.#: E3383 # 2/2 Range: -50 to 50 °C
Audit Digital Thermometer: Make: Van Waters & Rogers Model: 61220/601 S.N.#: 51091749 Range: -40 to 150 °C
Audit Probe: Make: Van Waters & Rogers Model: 61220/604 S.N.#: 240301145 Range: -40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:

Begin: 1425

End: 1500

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/ Fail?	DAS °C	Error °C	Pass/ Fail?	Delta T °C	Pass/ Fail?
Hot	35 to 45	38.08	38.31	0.23	Pass	38.31	0.23	Pass	0.00	Pass
Warm	15 to 25	12.40	12.57	0.17	Pass	12.57	0.17	Pass	0.00	Pass
Ice Bath	0	-0.03	0.15	0.18	Pass	0.15	0.18	Pass	0.00	Pass
Cold	-15 to -25	-21.11	-20.63	0.48	Pass	-20.63	0.48	Pass	0.00	Pass
Very Cold	-35 to -45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max Abs. Error				0.48	PASS		0.48	PASS	0.00	PASS

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).
Comments: Insufficient dry ice to reach extreme cold.

RELATIVE HUMIDITY SENSOR AUDIT

Height: 2.0 Meters

RH Sensor: Make: Vaisala Model: HMP45ASP S.N.#: A1040018 Range: 0.8 to 100 % RH
Audit Equipment: Make: Vaisala Model: HMI 41 S.N.#: X0650080 Range: 0 to 100 % RH
Audit Equipment: Probe# HMI41 X07450015

RH COLLOCATED STANDARD TEST								
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?
1206	93.9	-3.2	-3.2	99.5	-3.6	-3.7	-0.5	Pass
1246	90.9	-2.7	-2.9	98.6	-3.2	-3.4	-0.5	Pass
1330	91.0	-2.5	-3.6	94.2	-2.9	-3.7	-0.1	Pass
Max Abs. Error							0.5	PASS

PSD Limits: Max Absolute Error > 1.5°C Dew Point.

Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td = b * \mu / (a - \mu)$, where $\mu = a * Ta / (b + Ta) + \ln(RH)$, and $a = 17.27$, $b = 237.7$ °C.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallices
Witness(s): Dominic Shallices

Station Site: Pebble 1
Audit Date: Jan 17, 2007

• HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS

Height: 11.2 Meters

Wind Spd Sensor: Make: Climatronics Model: 100075 S.N.#: 5007 Cup #: 2284 Range: 0-60 m/s
Wind Dir Sensor: Make: Climatronics Model: 100076 S.N.#: 4691 Vane #: 1440 Range: 0-360 Deg
Spd Audit Eq: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864
Spd Audit Eq: High Spd: RM Young Model: 18801 S.N.#: CA01674
Dir Audit Eq: Linearity: Climatronics Model: 101984 S.N.#: 145 Torque: Honeywell Mdl 366-0 S.N.#: 5042
Dir Audit Eq: Compass: Brunton Model: 11-F5008 S.N.#: 5080799319 Magnetic Declin: 17.5 E of N

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.71	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
Max Abs. Error			0.00	0.0	PASS

Time: Begin: 1520 End: 1522

Conversion: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST					
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Input Description					
Koktuk Mtn		292.1	293.2	1.1	Pass
Koktuk Mtn (180°)		112.1	113.1	1.0	Pass
Cone Mtn		144.3	144.1	-0.2	Pass
Cone Mtn (180°)		324.3	326.0	1.7	Pass
Compass		42.0	41.7	-0.3	Pass
Time: Begin: 1400 End: 1420					
Max Abs. Error			1.7	PASS	
Mean Abs. Error			0.9	GOOD	

CROSSARM-VANE ACCUR. & LIN. TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0	180.2	0.2	Pass
West	270.0	272.1	2.1	Pass
North	360.0	0.0	0.0	Pass
East	90.0	91.5	1.5	Pass
North	360.0	0.6	0.6	Pass
West	270.0	272.2	2.2	Pass
South	180.0	181.4	1.4	Pass
East	90.0	92.1	2.1	Pass
Max Abs. Error			2.2	PASS
Mean Abs. Error			1.3	PASS

Time: Begin: 1508 End: 1510

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	29.0	-1.0	Pass	330.0	331.1	1.1	Pass
60.0	59.3	-0.7	Pass	355.0	355.0	0.0	Pass
90.0	89.9	-0.1	Pass	30.0	29.6	-0.4	Pass
120.0	120.4	0.4	Pass	60.0	60.2	0.2	Pass
150.0	150.2	0.2	Pass	90.0	90.4	0.4	Pass
180.0	179.8	-0.2	Pass	120.0	120.3	0.3	Pass
210.0	209.7	-0.3	Pass	150.0	150.6	0.6	Pass
240.0	240.0	0.0	Pass	180.0	180.3	0.3	Pass
270.0	270.3	0.3	Pass	Max Abs. Error		1.1	PASS
300.0	300.5	0.5	Pass	Mean Abs. Error		0.4	PASS

Time: Begin: 1513 End: 1515

WIND SPD TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.0049	0.004	PASS
New	0.0049	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.104	0.090	PASS
New	0.104	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST					
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Input Description					
Koktuk Mtn		292.1	293.9	1.8	Pass
Koktuk Mtn (180°)		112.1	114.3	2.2	Pass
Cone Mtn		144.3	146.3	2.0	Pass
Compass		91.0	92.2	1.2	Pass
Time: Begin: 1755 End: 1805					
Max Abs. Error			2.2	PASS	
Mean Abs. Error			1.8	GOOD	

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.

Max Abs Error > 0.20m/s @ WS≤5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: Very windy, limited direction points.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies **Alternate:** Steve Mackey
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Jan 17, 2007

• **HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AO**

Height: 10.4 **Meters**

Wind Sensor:	Make:	RM Young	Model:	05305 AQ	S.N.#:	66725	Prop #:	63112	Range:	0-360	Deg
Spd Audit Eq:	Low Spd:	RM Young	Model:	18811	S.N.#:	CA02136	Torque:	Watters Mdl 366-3	S.N.#:	4864	
Spd Audit Eq:	High Spd:	RM Young	Model:	18801	S.N.#:	CA01674					
Dir Audit Eq:	Linearity:	RMY Mdl 18112 Bench Stand	S.N.#:	None	Torque:	RMY Mdl 18331 Torque Gauge	S.N.#:	None			
Dir Audit Eq:	Compass:	Brunton	Model:	11-F5008	S.N.#:	5080799319	Magnetic Declin:	17.5	E of N		

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.06	0.01	N/A	Pass
1000	5.12	5.16	N/A	0.8	Pass
2000	10.24	10.28	N/A	0.4	Pass
5000	25.60	25.63	N/A	0.1	Pass
10000	51.20	51.30	N/A	0.2	Pass
	Max Abs. Error		0.01	0.8	PASS

Conversion: Model 08254 Prop: $m/s = 0.00512 \cdot rpm$.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST					
Box Aligned South?	✓	Input	DAS	Error	Pass/
Input Description		Deg	Deg	Deg	Fail?
Koktuk Mtn		292.1	290.0	-2.1	Pass
Koktuk Mtn (180°)		112.1	112.4	0.3	Pass
Cone Mtn		144.3	144.6	0.3	Pass
Cone Mtn (180°)		324.3	323.1	-1.2	Pass
Compass		42.0	40.6	-1.4	Pass
Time:	Begin:	1400	Max Abs. Error		2.1
	End:	1420	Mean Abs. Error		1.1

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	31.4	1.4	Pass	150.0	149.9	-0.1	Pass	270.0	269.1	-0.9	Pass
60.0	60.7	0.7	Pass	180.0	179.2	-0.8	Pass	300.0	299.1	-0.9	Pass
90.0	90.7	0.7	Pass	210.0	208.8	-1.2	Pass	330.0	328.9	-1.1	Pass
120.0	120.2	0.2	Pass	240.0	238.4	-1.6	Pass	355.0	355.2	0.2	Pass
Time: Begin: 1445								Max Abs. Error		1.6	PASS
End: 1450								Mean Abs. Error		0.8	PASS

WIND SPD TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	<0.003	PASS
New	0.014	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/ Fail?
In-Situ	11.0	8.0	PASS
New	11.0	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST						
Box Aligned South?		✓	Input	DAS	Error	Pass/
Input Description			Deg	Deg	Deg	Fail?
Koktuk Mtn			292.1	290.0	-2.1	Pass
Koktuk Mtn (180°)			112.1	113.9	1.8	Pass
Cone Mtn			144.3	145.4	1.1	Pass
Compass			91.0	92.9	1.9	Pass
Time: Begin: 1755			Max Abs. Error		2.1	PASS
End: 1805			Mean Abs. Error		1.7	GOOD

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error $>5^\circ$ (accuracy). Mean Abs Error $>3^\circ$ (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: Very windy, limited direction points.

Station Site: Pebble 1
Audit Date: Jan 17, 2007

Station Site: Pebble 1
Audit Date: Jan 17, 2007

Station Site: Pebble 1
Audit Date: Oct 11-13, 2006

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallices
Witness(s): Dominic Shallices

Station Site: Pebble 1
Audit Date: Oct 11-13, 2006

WEIGHING PRECIPITATION GAUGE AUDIT

Height: 1.5 Meters

Precipitation Gauge: Make: ETI Model: 8205-00710 Noah II S.N.#: 343 Range: 6 Inches per Hour
Audit Equipment: Make: Nova Lynx Corp. Model: 260-2595 S.N.#: 936 Range: 2 Inches per Hour
Diameter: 12.00 Inches Volume Rate 72.97 ml/mm

WEIGHING PRECIPITATION GAUGE VOLUME TEST										
Date:	Reading Time	Approx in	Input Vol ml	Input mm	Begin mm	End mm	Delta mm	Error % Input	Pass/Fail?	Notes
10/11/06	955	3.00	1600	21.9	3.30	24.38	21.08	-3.9%	Pass	
10/11/06	1008		1600	21.9	0.00	22.86	22.86	4.2%	Pass	
10/11/06	1020		1600	21.9	22.86	45.72	22.86	4.2%	Pass	
10/11/06	1029	5.75	800	11.0	45.72	57.66	11.94	8.9%	Pass	
10/11/06	1048		1600	21.9	57.66	81.28	23.62	7.7%	Pass	
10/11/06	1100		1600	21.9	81.28	104.10	22.82	4.1%	Pass	
10/11/06	1119	8.63	1600	21.9	0.00	22.61	22.61	3.1%	Pass	
10/11/06	1129		1600	21.9	22.61	45.21	22.61	3.1%	Pass	
10/11/06	1137		1600	21.9	45.21	67.82	22.61	3.1%	Pass	
10/11/06	1251	11.00	800	11.0	67.82	79.25	11.43	4.3%	Pass	
10/13/06	1015		400	5.5	0.00	5.59	5.59	2.0%	Pass	
Max Abs. Error								8.9%	PASS	

PSD Limits: Max Absolute Error > 10 % of Input.

Comments: Found at 10-5/8". Largest test tip drains 800 mil in 2-min.

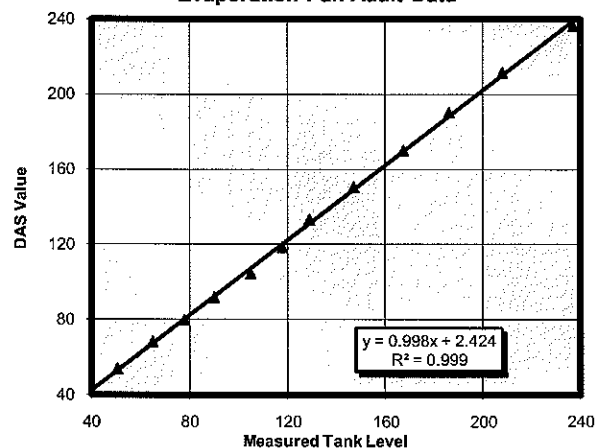
EVAPORATION GAUGE AUDIT

Height: 0.5 Meters

Evaporation Gauge: Make: NovaLynx Model: 255-100 S.N.#: 695 Range: 40-254 mm
Evaporation Pan: Make: NovaLynx Model: 255-200 S.N.#: None Range: 0-254 mm

EVAPORATION PAN STAGE HEIGHT TEST						
Pan inch	Pan mm	DAS mm	Level + Intcpt	Error mm	Error % Input	Pass/Fail?
	237.0	236.4	239.4	-3.0	-1.3%	Pass
	208.0	211.4	210.4	1.0	0.5%	Pass
	186.0	190.5	188.4	2.0	1.1%	Pass
	167.5	169.9	169.9	0.0	0.0%	Pass
	147.0	150.8	149.4	1.3	0.9%	Pass
	129.0	133.1	131.4	1.6	1.3%	Pass
	118.0	118.3	120.4	-2.1	-1.8%	Pass
	105.0	104.6	107.4	-2.8	-2.6%	Pass
	90.0	91.5	92.4	-0.9	-1.0%	Pass
	78.0	80.0	80.4	-0.4	-0.5%	Pass
	65.0	67.9	67.4	0.4	0.7%	Pass
	50.5	53.8	52.9	0.8	1.6%	Pass
Max Abs. Error				3.0	2.6%	PASS
Intercept				2.4	Slope	0.9987 PASS

Evaporation Pan Audit Data



Time: Begin: 1135 End: 1230

PSD Limits: Max Absolute Error > 10 % of Input adjusted for slope/intercept.

Comments: Audited before winterizing on 10/11/06.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies **Alternate:** Steve Mackey
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Feb 6, 2007

● **HORI ONTA WIND SENSOR AUDIT R OUNG A**

Height: 10.4 **Meters**

Wind Sensor:	Make:	RM Young	Model:	05305 AQ	S.N.#:	67731	Prop #:	63798	Range:	0-360	Deg
Spd Audit Eq:	Low Spd:	RM Young	Model:	18811	S.N.#:	CA02136	Torque:	Watters Mdl 366-3	S.N.#:	4864	
Spd Audit Eq:	High Spd:	RM Young	Model:	18801	S.N.#:	CA01674					
Dir Audit Eq:	Linearity:	RMY Mdl 18112 Bench Stand	S.N.#:	None	Torque:	RMY Mdl 18331 Torque Gauge	S.N.#:	None			
Dir Audit Eq:	Compass:	Brunton	Model:	11-F5008	S.N.#:	5080799319	Magnetic Declin:	17.5	E of N		

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/ Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.04	-0.01	N/A	Pass
1000	5.12	5.14	N/A	0.4	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
9000	46.08	46.18	N/A	0.2	Pass
	Max Abs. Error		0.01	0.4	PASS

Time: Begin: 1540 End: 1545

Conversion: Model 08254 Prop: $m/s = 0.00512 \cdot rpm$.

Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST					
Box Aligned South?	✓	Input Deg	DAS Deg	Error Deg	Pass/ Fail?
Input Description					
New Instrument-					
No In-Situ Test					
Time: Begin:		Max Abs. Error			
End:		Mean Abs. Error			

Time: Begin:

End:

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	31.7	1.7	Pass	150.0	151.3	1.3	Pass	270.0	268.5	-1.5	Pass
60.0	62.0	2.0	Pass	180.0	180.6	0.6	Pass	300.0	297.7	-2.3	Pass
90.0	92.5	2.5	Pass	210.0	209.8	-0.2	Pass	330.0	327.2	-2.8	Pass
120.0	121.9	1.9	Pass	240.0	239.1	-0.9	Pass	355.0	352.3	-2.7	Pass
Time: Begin: 1530								Max Abs. Error		2.8	PASS
End: 1535								Mean Abs. Error		1.7	PASS

Time: Begin:

End:

WIND SPD-TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	0.007	PASS
New	0.014	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/Fail?
In-Situ	11.0	6.0	PASS
New	11.0	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST					
Box Aligned South?	✓	Input	DAS	Error	Pass/
Input Description		Deg	Deg	Deg	Fail?
Koktuk Mtn		292.1	291.8	-0.3	Pass
Mt Iliamna		264.4	262.6	-1.8	Pass
Gnd Hog_Spire_2488		216.5	217.1	0.6	Pass
Cone Mtn		144.3	147.6	3.3	Pass
Compass		86.0	88.9	2.9	Pass
Hill 1984		9.7	10.3	0.6	Pass
Time:	Begin:	1620	Max Abs. Error	3.3	PASS
	End:	1640	Mean Abs. Error	1.6	GOOD

Time: Begin:

End:

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error $>5^\circ$ (accuracy). Mean Abs Error $>3^\circ$ (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: RM Young instrument replaced after wind storm destroyed previously installed instrument. Single point check on Climatronics; Koktuk Mtn DAS reading of 294.4° for a true value of 292.1°.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Auditor: Eric Brudie

Witness(s): Dominic Shallies

Audit Date: Feb 6, 2007

Audit Date: Feb 6, 2007

• WEIGHING PRECIPITATION GAUGE AUDIT

Height: 2.5 **Meters**

Audit Equipment: **Make:** Nova Lynx Corp.

Model: 260-2595

S.N.#: 936

Range: 6 Inches per Hour
Range: 2 Inches per Hour

Diameter: 12.00 **Inches**

Volume Rate	72.97
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950
/mm

Range, 2 inches per Hour

Diameter: 12.00 **Inches**

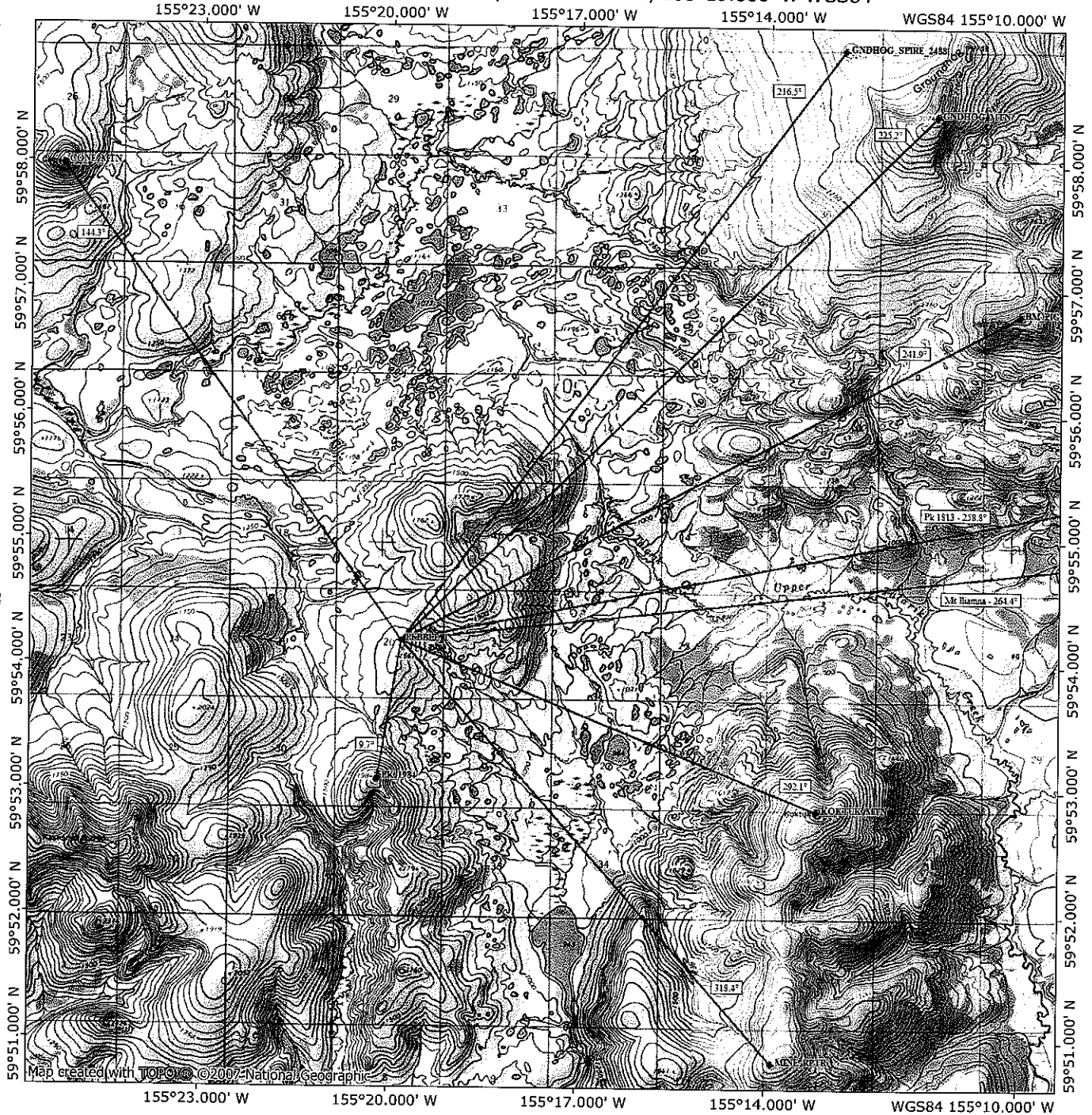
Volume Rate	72.97	ml/mm
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WEIGHING PRECIPITATION GAUGE VOLUME TEST									
Reading Time	Approx in	Input Vol ml	Input mm	Begin mm	End mm	Delta mm	Error % Input	Pass/ Fail?	Notes
1530	4.25	1600	21.9	0.00	23.62	23.62	7.7%	Pass	
1542		1600	21.9	23.62	46.74	23.12	5.4%	Pass	
1559		1600	21.9	46.74	69.85	23.11	5.4%	Pass	
1618	6.75	1600	21.9	0.00	20.57	20.57	-6.2%	Pass	
1632		1600	21.9	20.57	43.43	22.86	4.2%	Pass	
1658		1600	21.9	43.43	66.29	22.86	4.2%	Pass	
1710		1600	21.9	0.00	23.37	23.37	6.6%	Pass	
					Max Abs. Error	7.7%	PASS		

PSD Limits: Max Absolute Error > 10 % of Input.

Comments: None.

Pebble 1 TOPO Alignment Map - 59°54.179' N, 155°19.806' W WGS84



TN* / MN
17 1/2°
03/13/07

APPENDIX B
AUDIT EQUIPMENT CALIBRATION CERTIFICATES



Certificate 1750 01

Calibration complies with
ISO/IEC 17025 AND ANSI/NCSL Z540-1



Cert. No.: 4000-1338226

Traceable® Certificate of Calibration for Digital Thermometer

Instrument Identification:

Hoeffler Consulting Group, 3401 Minnesota Dr, Suite 300, Attn: Dominic Shalies, Anchorage, AK 99503 U.S.A. (RMA:933478)

Model: 61220-601 S/N: 51091749 Manufacturer: Control Company

Model: 61220-604 S/N: 240301145

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Probe	128	12/08/06	A5B28010-1
Thermistor Module	A17118	8/12/06	A5819038
Temperature Calibration Bath TC179	A45240		
Temperature Calibration Bath TC191	A42238		
Temperature Probe	157	9/01/06	A5815063
Thermistor Module	A27129	7/05/06	1000189003

Certificate Information:

Technician: 68 Procedure: CAL-06 Cal Date: 6/07/06 Cal Due: 6/07/07
Test Conditions: 25.5°C 39.0 %RH 1013 mBar

Calibration Data:

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±uc	TUR
°C	0.000	0.072	N	0.000	-0.004	Y	-0.050	0.050	0.013	3.8:1
°C	25.000	25.020	Y	25.000	24.999	Y	24.950	25.050	0.013	3.8:1
°C	60.002	59.999	Y	60.001	59.999	Y	59.951	60.051	0.013	3.8:1
°C	100.002	100.001	Y	100.002	100.004	Y	99.952	100.052	0.013	3.8:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±uc=Measurement Uncertainty; TUR=Test Uncertainty Ratio;
Accuracy=±(Max-Min)/2

Wallace Berry
Wallace Berry, Technical Manager

Maintaining Accuracy:

In our opinion once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA
Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com

Control Company is an ISO 17025 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.
Control Company is ISO 9001 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-AQ-HOU.
International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).



Certificate of Calibration

Report #: 112006-X0740015-RH RMA #: 95-56707

Calibration Date: Nov-20-2006

Model #: HMI41/HMP45

Serial #: X0650080/X0740015

Instrument Type: Humidity Transmitter

Calibration Procedure: 11603100

Instrument Range: 0 to 100%RH, -20 to 60°C, Temp.

Recommended Calibration Due Date: Nov-20-2007

Customer: HOEFLER CONSULTING GROUP

City, State: ANCHORAGE, AK USA

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% RH against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11% and 97%* RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. *Note: the 0% and 97% RH points are not ISO 17025 Accredited

Calibration Data (As Found)				
Out of Tolerance: NO				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.12	21.20	0.08	0.21	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	-0.30	-0.33	2.00	0.50 *
11.55	11.30	-0.25	2.00	0.92
75.10	74.60	-0.50	2.00	1.02
97.60	96.40	-1.20	3.00	1.50 *
Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.57	21.60	0.03	0.21	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50 *
11.43	11.60	0.17	2.00	0.92
75.10	75.10	0.00	2.00	1.02
97.60	96.70	-0.90	3.00	1.50 *

Problem Noted: None

Action Taken: The Unit Was Calibrated

The results of this calibration are related only to the items being calibrated, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Number TN 274176, dated Oct. 2006. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC 17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 3A			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	21609085	Nov. 24, 2004	Nov. 24, 2006
Fuke 45	7781003	Jan. 12, 2006	Jan. 12, 2007
HMK13B	V324	Oct. 13, 2006	Apr. 13, 2007
HMP233	671210	Nov. 10, 2006	Feb. 10, 2007
HMT333	80920004	Sep. 27, 2006	Dec. 27, 2006
HMI41/HMP45	S1130071	Sep. 1, 2006	Dec. 1, 2006

Ambient Conditions	
Temperature:	21.80 °C
Humidity:	49.10 %RH

Approved By

Technical Operator
Johnson François



R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:**Model:** 18811**Serial Number:**

CA02136

Description: Anemometer Drive - 20 to 990 RPM

- Comprised of Models 18820A Control Unit & 18831A Motor Assembly

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
(2) 27106D produces 10 pulses per revolution of anemometer shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☒ No Calibration Adjustments Required

☐ As Found

☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 24 May 2006

Tested By

EP



R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:

Model: 18801 Serial Number: CA01674
Description: Anemometer Drive - 10 to 10,000 RPM
- Comprised of Models 18820 Control Unit & 18830 Motor Assembly

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured at the optical encoder output
(2) Frequency output produces 32 pulses per revolution of the motor shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☒ No Calibration Adjustments Required

☐ As Found

☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 22 November 2006

Tested By

EP

Houston Precision, Inc.

Calibration Report

8729 Gulf Freeway
Houston, TX 77017-6504

Company: Hoefler Consulting Group
Address: 3401 Minnesota Drive
Suite 300
Anchorage, AK 99503
Contact: Chris Lindsey
Dept:

Doc #: 36861
Date: 10/25/2006
PO#: 1208-003-161
Page: 1

Gage: Torque Watch m#366-3
Mfg: Water's
Location:

Control: 4864
Model: Torque Watch m#366-3
Serial #: 4864

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Caltech Calibration
Original Certificate (attached) # 4074

Reference HPI S/O # 14307

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

Last / Next Cal Dates: -->

Gage Status: PASS

Next Calibration Due: 10/25/2007

Certified By: Denice V. Mills Signature: Denice V. Mills

This certificate is not valid unless all 1 page(s) are present.

*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.

*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.

*The measurement of uncertainty has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.

*If additional information regarding this calibration is required, please contact this laboratory.

*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.

*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.

HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

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End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4074
Instrument Make: Water TQ Watch
Model: 366-3
S/N: 4864
ID: 4864

Date: 10-25-06
Temp: 74 Deg f
Humidity: 43%
Rec. In Tol.
Due Date: 10-25-07

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Certification by: _____



Comments:

Standards Used	Model	Certification Number	Due Date
Troemner Weights	1156	822/270636-04	3-01-08
In. Oz. Range Red	As Found	After Adjust	Final Reading
.003	.003	none	.003
.009	.008	none	.008
.015	.014	none	.014
.021	.022	none	.022
.027	.028	none	.028
.03	.02	none	.02
Black			
.03	.03	none	.03
.024	.024	none	.024
.018	.017	none	.017
.012	.011	none	.011
.006	.005	none	.005
.003	.002	none	.002

Cal-Tech Calibration, Inc.

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

Houston Precision, Inc.

8729 Gulf Freeway

Houston, TX 77017-6504

Calibration Report

Company: Hoefler Consulting Group

Address:

3401 Minnesota Drive, Suite 300

Anchorage, AK 99503

Contact: Dominic Shallies

Dept:

Doc #:

37827

Date:

1/10/2007

PO#:

1208-004-403

Page:

1

Gage: Torque Watch

Mfg: HONEYWELL

Location: Calibration Lab

Control: 5042

Model: 366

Serial #: 5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Cal-Tech Calibration, Inc.

Original Certificate (attached) #4327

Reference HPI S/O #14549

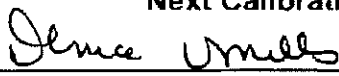
We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

: VENDOR MASTER

Last / Next Cal Dates: -->

Gage Status: PASS

Next Calibration Due: 1/10/2008

Certified By: Denise V. Mills Signature: 

This certificate is not valid unless all 1 page(s) are present.

*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.

*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.

*The measurement of uncertainty has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.

*If additional information regarding this calibration is required, please contact this laboratory.

*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.

*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.

HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

*This Report shall not be reproduced except in full, or with the expressed written permission of Houston Precision, Inc.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCCL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4327
Instrument Make: Honeywell Torque Watch
Model: 366
S/N: none
ID: 5042

Date: 1-10-07
Temp: 72 Deg f
Humidity: 39%
Rec. In Tol.
Due Date: 1-10-08

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Certification by: 

Accuracy: $\pm 1\%$ of reading.

Comments:

Standards Used	Model	Certification Number	Due Date
----------------	-------	----------------------	----------

Acculab	300g	822/270236-04	12-01-07
---------	------	---------------	----------

Reading In/oz	As Found	After Adjust	Final Reading
0.10	0.1	none	0.1
0.20	0.19	none	0.19
0.40	0.40	none	0.40
0.60	0.60	none	0.60

Cal-Tech Calibration, Inc.

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY

Certificate Of Calibration

Equipment Owner:

Name: DOMINIC SHALLIES

Address: 3401 MINNESOTA DR. STE # 300

City, State, Zip: ANCHORAGE, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 2ND Day of NOVEMBER 20 06

DESCRIPTION: POCKET TRANSIT

PURCHASE ORDER: RA 7277

ORDER NUMBER: 23732

LOT NUMBER: 19802

MODEL NUMBER: 5008

SERIAL NUMBER: 5080799319

CALIBRATION DATE: 11-2-06

RECALIBRATION DUE DATE: 11-2-07

Signed Linda Kenyon
QUALITY CONTROL MANAGER

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 052406. 03

Transfer standard model: Pretel AltiPlus A2

Serial number: 27806

submitted by/owner: Hoefler Consulting Group
3401 Minnesota Drive
Suite 300
Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:

Model number: 355-AI0900

Serial number: 913930-M1

Certified accuracy of ± 0.007 "Hg

NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 05/24/06

Lab temperature

72.8

°F

Lab pressure

663.1

mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*
24.00	24.13	0.13	-0.13
26.11	26.24	0.13	-0.13
28.00	28.12	0.12	-0.12
30.00	30.11	0.11	-0.11

Note:

If no sign is given on the correction, the true pressure
is higher than the indicated pressure. If the sign is negative,
the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES ☐ NO ☒

Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*

Reviewed: 

Date: 5-24-06

Roger L. Sanders, PE

Chinook Engineering

a division of Inter-Mountain Laboratories, Inc.

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Fax: 401-847-1031

Email: epplab@mail.bbsnet.com

Internet: www.eppleylab.com



Scientific Instruments
for Precision Measurements
Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 $^{\circ}\text{C}$

Temperature Compensation Range: -20 to 40 $^{\circ}\text{C}$

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter⁻² (roughly one-half a solar constant). The adopted calibration temperature is 25 $^{\circ}\text{C}$.

As a result of a series of comparisons, it has been found to have a sensitivity of:

$$9.29 \times 10^{-6} \text{ volts/watts meter}^{-2}$$

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter⁻². This radiometer is linear to within $\pm 0.5\%$ up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrhemometers in terms of the Systems Internationale des Unites (SI units), which participated in the Ninth International Pyrhemometric Comparisons (IPC IX) at Davos, Switzerland in September-October 2000.

Useful conversion facts: 1 cal cm⁻² min⁻¹ = 697.3 watts meter⁻²
1 BTU/ft²-hr⁻¹ = 3.153 watts meter⁻²

Shipped to:
Hoeffler Consulting Group
Anchorage, Alaska

Date of Test: November 30, 2006

In Charge of Test:

S.O. Number: 60951

Date: November 30, 2006

Reviewed by:

Remarks:

R.T. Egan
Thomas Kirk

**Pebble 1
PSD Meteorological
Monitoring Station**

September 2007

**Quality Assurance
Systems Audit and
Performance Audit**



for the

**Pebble Project
Meteorological
Monitoring Program
Iliamna, Alaska**

prepared for

Northern Dynasty Mines, Inc.

**Pebble 1 PSD Meteorological Monitoring Station
September 2007
Quality Assurance Systems Audit
and Performance Audit**

Prepared for:

**Northern Dynasty Mines, Inc.
Anchorage, Alaska**

Prepared by:

**Hoefler Consulting Group, Inc.
3401 Minnesota Drive, Suite 300
Anchorage, Alaska 99503**

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1.0 INTRODUCTION

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 1 Station (Pebble 1) located near the proposed mine site.

Pebble 1 is located just west of the mine ore body on top of a gentle, windswept knoll at about 1,550 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. A weighing precipitation gauge is located approximately 75 feet west of the tower and an evaporation pan, collocated with a tipping precipitation gauge, is located roughly 125 feet south of the tower. Between the tower and the precipitation gauges is a 6' by 8' insulated building which houses the datalogger and power supply system. Pebble 1 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m²): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation 1 (mm H₂O): Met-One Model 370 Tipping Precipitation Gauge
- Precipitation 2 (mm H₂O): ETI Model Noah II Weighing Precipitation Gauge
- Evaporation (mm H₂O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as an official review of the Pebble 1 station and a review of the overall Pebble Project Meteorological Monitoring Program. To that end, Systems and Performance Audits were undertaken in order to help demonstrate that the equipment and procedures used for collecting meteorological data by HCG meet the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 SYSTEMS AUDIT

2.1 Systems Audit Methodology

In the *Quality Assurance Handbook for Air Pollution Measurement Systems* and the *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to serve as a qualitative review of all aspects of a meteorological monitoring program. The systems audit includes a review of the program plan, station site, facilities, equipment, personnel, procedures, record keeping, data validation and data reporting. The systems audit should be completed within the first 30 days of operation and every year thereafter.

The *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* was completed by HCG in August 2006. This systems audit consisted of a review of the plan, site visits and personnel interviews. Personnel were also observed during station maintenance and calibration operations. All aspects of the program not specifically mentioned in the Plan were reviewed to determine consistency with EPA and ADEC guidelines. The complete systems audit report contained in Appendix A is organized into six major sections; 1) General Program Information, 2) Monitoring Program Staff Organization, 3) Meteorological Monitoring Station Equipment, 4) Standard Operating Procedures, 5) Documentation, 6) Data Processing and Validation, 7) Quality Assurance and Quality Control (QA/QC), and 8) Comments and Suggestions. Each section consists of a question and answer format with additional comments to provide clarity. Flow charts are also used to accurately document program staff organization and the data handling process. A complete list of the references used for the systems audit is contained in Section 4.

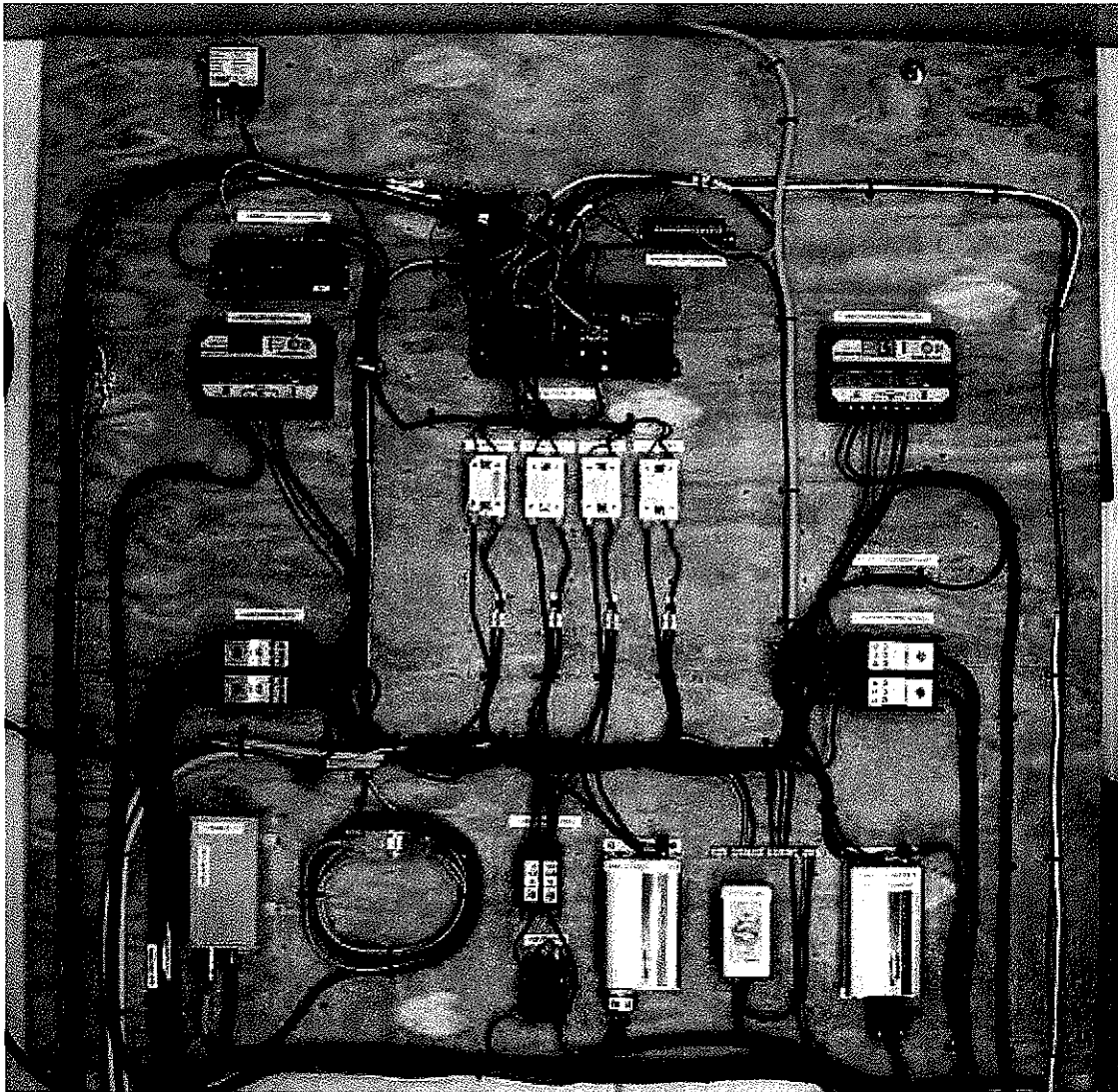
2.2 Meteorological Station Onsite Systems Audit

The on-site systems audit of the Pebble 1 station was conducted in early September 2007. Eric Brudie of HCG completed the systems audit with Dominic Shallies of HCG assisting and witnessing. Mr. Brudie serves as an independent auditor on this project and is not involved with day to day operations of the station.

The Pebble 1 meteorological monitoring station is founded on a stable, well anchored tower with PSD quality sensors securely affixed. The weighing precipitation gauge is shielded from high winds by a 20' diameter Wyoming Wind Screen. The evaporation pan, evaporation gauge and a tipping precipitation gauge are mounted on a 6' by 8' deck supported on four adjustable pier blocks, which allow leveling. The evaporation deck is surrounded by a 6' high fence and all instrumentation wires from the tower,

precipitation gauges and evaporation gauge are protected in conduit. These conduits all converge at a 6' by 8' insulated prefab building. The data acquisition system (DAS), communications system, solar controllers and power distribution system are mounted on a 4' by 4' plywood wiring panel mounted in the building, see photo.

Figure 2-1 Pebble 1 Station DAS Wiring Panel



The Campbell Scientific CR10X/CR1000 DAS wiring is well organized and needs no further discussion. Constant communication between the DAS and a dedicated polling computer in the HCG office is integral to this installation. FreeWave spread spectrum radio modems transmit the signal to a SixNet industrial phone modem which is linked to the grid in Iliamna. The met station radio and base radio rely on directional Yagi antennas focused on an omni-directional antenna at the repeater radio. The repeater

radio is powered by one 70-Watt solar panel buffered through a solar controller and five 100 Amp-Hr deep cycle gel cell batteries.

Power generation at the meteorological monitoring station consists of four 50-Watt solar panels and a Global Thermoelectric Generator (TEG). One solar panel is dedicated to the DAS and meteorological instrumentation; wired through a solar controller and buffered through five 100 Amp-Hr deep cycle gel cell batteries. Three solar panels are dedicated to the aspirator fans, Climatronics bearing heaters, shelter lighting and 120VAC power; also wired through a solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. The shelter lights and 120VAC inverter for laptop use are routed through manual timers to ensure use only when operators are on site. During the winter months, November through April, the TEG is turned on to supplement the power system. The TEG power is routed through relays wired to the DAS control ports which isolate the critical DAS/sensor system during upset conditions. Climatronics heaters are also controlled through relays programmed to limit heater use to weather conditions conducive to icing. All system battery voltages are monitored by the DAS and the thermistor aspirator fans are wired through a current shunt in order to monitor fan operation.

2.3 Operations, Data Management and Documentation Systems Audit

This phase of the systems audit consists of a review of the HCG *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* (Plan), and other system documentation, and a review of system operations. System operations include physically running the station and subsequent data management.

The Plan is a comprehensive document which adequately details the Pebble meteorological monitoring program. Program objectives, installations, operations, data management and quality assurance are all clearly outlined. Equally, the Pebble 1 station is representative of the Plan design. The Plan provides standard operating procedures and standard forms for all equipment field calibrations and audits. Station operators also had complete DAS and meteorological sensor manuals on hand at the station. Plan and documentation review are covered further in Appendix A.

Station operators were observed during calibration and maintenance procedures and appeared knowledgeable about all facets of operating the monitoring station. Data are downloaded daily using an automated script on a dedicated polling computer located at the HCG office. The raw data are appended to a station file located on the HCG server, which is backed up daily. The data manager copies the raw data to a custom Access/Excel database, leaving the raw data unaltered. The custom database creates

a series of graphs of all meteorological data as well as some station operational parameters. These plots are reviewed 5-6 days per week in order to immediately identify station upsets. An example is a graph of solar radiation and battery voltage; which reveals potential problems with daily charge cycles. Both the Climatronics and RM Young Wind sensor data are plotted together to indicate problems with one of the sensors. All station parameters are plotted with ranges and pairings intended to best reveal upset conditions. Problems are immediately identified and corrective action planned and executed. Steps are taken to flag data which may have been identified as suspect during this graphical data review. Data generated during station maintenance, audits and calibrations are also flagged as invalid.

Prior to compilation of data summary reports, data are screened using EPA recommended screening criteria. Data flagged as outliers by the screening program are further reviewed for consistency with prevailing conditions and then permanently invalidated or validated. Data ultimately invalidated are permanently removed from the database and the reasoning is codified in a special column in the database. This cleaned dataset is used for all subsequent data summaries, wind roses, data reports and capture rate calculations. More detailed discussion of the operations and data management are contained in the Systems Audit Appendix A.

2.4 Comments and Suggestions

The Pebble 1 station is a well designed and operated meteorological monitoring station. During the recent audit the operator upgraded the data acquisition system and added current shunts to the system in order to remotely monitor the aspirator fans. The remote station is equipped with a robust and sophisticated power supply which is constantly monitored. The systems audit revealed that HCG possesses the necessary organization, personnel, training, equipment, quality assurance, and quality control procedures to accurately collect and report PSD quality data. HCG adequately maintains the Pebble 1 station and practices sufficient data review and preventive maintenance to avoid unnecessary data loss.

The following recommendations are made to the program in order to improve the operation of the stations and ensure their operation is in accordance with standards:

- Create custom site visit procedural and inventory checklists
- Keep files on site containing copies of previous visit checklists
- Always use paper calibration forms as well as computer entered forms.

3.0 PERFORMANCE AUDIT

3.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 3-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 3-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	$\leq \pm 5:00$ minutes from AST
Temperature Accuracy	Collocated NIST thermistor	$\leq \pm 0.5$ °C
Temperature Difference	Collocated NIST thermistor	$\leq \pm 0.1$ °C
Relative Humidity	Collocated NIST RH sensor	$\leq \pm 1.5$ °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	$\leq \pm 0.2$ m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	$\leq \pm 5^\circ$ from true azimuth
Wind Direction Accuracy	Linearity tester	$\leq \pm 5^\circ$ per audit point
Wind Direction Linearity	Linearity tester	$\leq 3^\circ$ mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	$\leq \pm 3$ mbar
Solar Radiation	Collocated NIST sensor	$\leq \pm 5\%$ of input+resolutuion ¹
Precipitation	Calibrated water volume	$\leq \pm 10\%$ of input
Evaporation	Measured water level	$\leq \pm 10\%$ of input

1. This audit limit is modified from PSD standard, as discussed below.

3.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

3.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snugly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of $\pm 0.5^{\circ}\text{C}$. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of $\pm 0.1^{\circ}\text{C}$.

3.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of $\pm 1.5^{\circ}\text{C}$ dew point.

3.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

3.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed $\pm 5^{\circ}$ per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of known bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of $\pm 5^\circ$ per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument starting torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

3.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ± 3 mbar.

3.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is $\pm 5\%$ of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of $\pm 5\%$ of observed + **EPA minimum instrument resolution ($10\text{W}/\text{m}^2$)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0 ± 0.05 .

3.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run.

The ETI weighing gauge is also audited using the calibrated bottle from the Nova Lynx Model 260-2595 Rain Gauge Calibrator, except the measured water volume is poured directly into the gauge opening. The DAS reading is recorded at the beginning of the test and after every $1/2"$ to $1"$ pour thereafter, up to the limit of the gauge. With both gauges, the percent difference between the predicted audit value and the DAS value is compared to the PSD limit of $\pm 10\%$.

3.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of $\pm 10\%$ of input and the slope of resultant line has a limit of 1.0 ± 0.1 .

3.2 Performance Audit Results

The performance audits were conducted at the Pebble 1 station from September 2-4, 2007, with Dominic Shallies of HCG assisting. The station was audited as found on September 2, 2007. After the initial audit the datalogger was upgraded from a Campbell Scientific CR10X to a CR1000 and the thermistors, RH sensor, Climatronics wind sensor and solar radiation sensor were also replaced. After these station modifications the station was re-audited on September 3-4, 2007. All sensors were challenged with certified audit equipment and yielded errors below the PSD limits, except the 10-meter thermistor during the initial audit. Summary audit results are contained in Tables 3-2 and 3-3, and complete audit reports and audit equipment calibration certificates are contained in Appendix B and Appendix C respectively.

3.3 Performance Audit Recommendations

- None.

Table 3-2 Pebble 1 September 2, 2007 Performance Audit Summary (CR10X)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	-0:02	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.32	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.68	Fail ¹
Air Temperature Difference	$\leq \pm 0.1$	°C	0.40	Fail ¹
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.4	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.100	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	3.2	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.2	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	N/A ²	N/A
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.005	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.01	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	1.2	Pass
Wind Direction Torque	≤ 11	g-cm	9.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	3.7	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.8	Pass
Wind Direction Linearity	≤ 3	Degree	1.2	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	N/A ²	N/A
Barometric Pressure	$\leq \pm 3$	Mbar	-0.1	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	-8.7 ³	Pass
Tipping Precipitation	$\leq \pm 10$	% input	N/A ²	N/A
Weighing Precipitation	$\leq \pm 10$	% input	7.7	Pass
Evaporation	$\leq \pm 10$	% input	5.2	Pass

1. Thermistors replaced after CR10X audit.
2. Not re-tested until after DAS/sensor change.
3. Max % error value of 8.7 within limit of 5% input + resolution, see audit.

Table 3-3 Pebble 1 September 3-4, 2007 Performance Audit Summary (CR1000)

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	-1:00	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.10	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.10	Pass
Air Temperature Difference	$\leq \pm 0.1$	°C	0.00	Pass
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.2	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.070	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	N/A ¹	N/A
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.6	Pass
Wind Direction Linearity	≤ 3	Degree	0.6	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	-1.2	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	9.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	N/A ¹	N/A
Wind Direction Accuracy	$\leq \pm 5$	Degree	2.0	Pass
Wind Direction Linearity	≤ 3	Degree	1.4	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	-3.1	Pass
Barometric Pressure	$\leq \pm 3$	Mbar	-0.6	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	5.2 ²	Pass
Tipping Precipitation	$\leq \pm 10$	% input	-10.0 ³	Pass
Weighing Precipitation	$\leq \pm 10$	% input	7.8	Pass
Evaporation	$\leq \pm 10$	% input	3.5	Pass

1. New DAS/sensor, no as-found value.
2. Max % error value of 5.2 within limit of 5% input + resolution, see audit.
3. Single point at 10%, five other readings at 1% to 6% error.

4.0 REFERENCES

"Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program", Hoefler Consulting Group, Inc., August 2006.

"Quality Assurance Manual for Ambient Air Quality Monitoring" ADEC, August 1996.

"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)", ADEC, September 2004.

"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring", EPA-40 CFR Part 58, Appendix B, November 2004.

"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

"Meteorological Monitoring Guidance for Regulatory Modeling Applications", EPA-454/R-99-005, February 2000.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

**APPENDIX A
SYSTEMS AUDIT DATA SHEETS**

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

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1.0 GENERAL PROGRAM INFORMATION

1.1 Site Description

The Pebble 1 station is located on the crest of a gentle knoll immediately west of the mine ore body. The site is windswept and treeless with very little organics and virtually no obstructions around the station.

1.2 Site Location

1.2.1 Coordinates

Indicated by Operator	Determined by Auditor
59° 54' N	59° 54.180' N
155° 20' W	155° 19.804' W
Elevation: 1,600 feet	Elevation: 1,550 feet

1.2.2 Appearance and Safety

Does the site appear clean, organized and well maintained?

☒ Yes
☐ No

Comments: None.

Does the site appear to be safe and reasonably hazard free?

☒ Yes
☐ No

Comments: None.

Does the site have a shelter for operators?

☒ Yes
☐ No

Comments: None.

Does the site have emergency equipment such as a first aid kit available?

☒ Yes
☐ No

Comments: None.

Does the site have adequate measures to prevent human tampering?

☒ Yes
☐ No

Comments: Remote site.

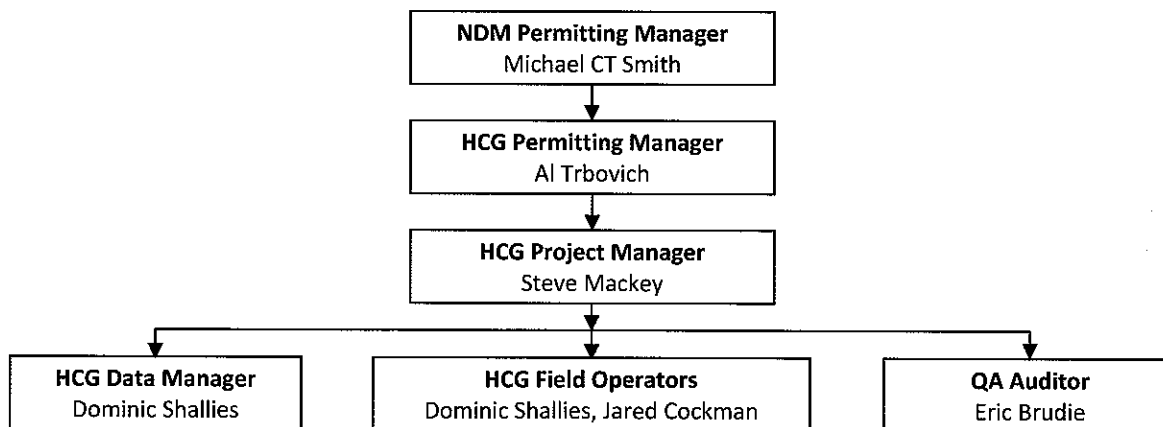
Does the site have adequate measures to prevent damage from animals?

☒ Yes
☐ No

Comments: Cables protected in liquid-tight conduit and electronics inside shelter.

2.0 MONITORING PROGRAM STAFF ORGANIZATION

- Draw a diagram of the organizational structure of the monitoring program, including names and titles:



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3.0 METEOROLOGICAL MONITORING STATION EQUIPMENT

3.1 Inventory

Parameter	Make	Model	Serial No.
Old DAS ¹	Campbell Scientific	CR10X	X43107
Old DAS Wiring Panel	Campbell Scientific	CR10X	32768
New DAS ²	Campbell Scientific	CR1000	Unknown
New DAS Wiring Panel	Campbell Scientific	CR1000	4678
Old Temperature (2-meter)	Met One	062MP	E3383, ID #1/2
Old Temperature (10-meter)	Met One	062MP	E3383, ID #2/2
New Temperature (2-meter)	Met One	062MP	E3361, ID #1/2
New Temperature (10-meter)	Met One	062MP	E3361, ID #2/2
Old Relative Humidity	Vaisala	HMP45AC	A1040018
New Relative Humidity	Vaisala	HMP45AC	B4850667
Temperature Aspirators	Met One	076B-4	E3489 & E3490
Old Primary Wind Speed	Climatronics	F460-100075	5007
New Primary Wind Speed	Climatronics	F460-100075	3977
Primary Wind Speed Cups	Climatronics	HD Al. P/N 101287	2284
Old Primary Wind Direction	Climatronics	F460-100076	4691
New Primary Wind Direction	Climatronics	F460-100076	4661
Primary Wind Direction Vane	Climatronics	HD P/N 101288	1440
Wind Sigma	Campbell Scientific	DAS Calculated	N/A
Backup Wind Speed	RM Young	05305 Wind Mon-AQ	67731
Backup Wind Spd Prop	RM Young	08254	63798
Backup Wind Direction	RM Young	05305 Wind Mon-AQ	66725
Barometric Pressure	Vaisala	PTB101B	A0710039
Old Solar Radiation	LI-COR	Li-200SX	PY49464
New Solar Radiation	LI-COR	Li-200SX	PY56427
Precipitation-Tipping	Met-One	370	D5874
Precip Tipping Wind Screen	NovaLynx	260-952 Alter Type	N/A
Precipitation-Weighing	ETI	8205-00710 Noah II	389
Precip Weighing Wind Screen	Custom made.	Wyom. Wind Screen	N/A
Evaporation Gauge	NovaLynx	255-100	695
Evaporation Pan	NovaLynx	255-200	None

1. DAS and some sensors replaced after initial audit on Sep 02, 2007.
2. New DAS and sensors audited on Sep 03-04, 2007.

3.2 Equipment Evaluation

3.2.1 Data Acquisition System (DAS) and Communications System

Is the DAS well protected from the elements with adequate room for maintenance?

☒ Yes
☐ No

Comments: DAS inside of a weatherproof building, mounted on a 4'x4' wiring panel.

Is the DAS rated for operation in the expected local temperature range?

☒ Yes
☐ No

Comments: -55°C to + 85°C.

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- | | | |
|--|---|--|
| Are all sensor cables neatly and securely connected to the correct DAS channels? | <input checked="" type="checkbox"/> Yes | Comments: <u>Well organized wiring panel.</u> |
| | <input type="checkbox"/> No | |
| Is remote communication to the DAS system available to operators? | <input checked="" type="checkbox"/> Yes | Comments: <u>DAS connected to FreeWave network linked to SixNet modem on telephone grid.</u> |
| | <input type="checkbox"/> No | |
| Are all components of the DAS and communications system operational? | <input checked="" type="checkbox"/> Yes | Comments: <u>None.</u> |
| | <input type="checkbox"/> No | |
| Are the DAS and communication equipment properly grounded? | <input checked="" type="checkbox"/> Yes | Comments: <u>8' ground rod wired to central ground buss.</u> |
| | <input type="checkbox"/> No | |
| Are the DAS and communication equipment protected from lightning? | <input type="checkbox"/> Yes | Comments: <u>There is no lightning protection, but area not prone to strikes.</u> |
| | <input checked="" type="checkbox"/> No | |

3.2.2 Power Supply System

- | | | |
|---|---|--|
| Does the system have a stable power supply or line power? | <input checked="" type="checkbox"/> Yes | Comments: <u>Very robust alternative power supply described below.</u> |
| | <input type="checkbox"/> No | |

- Describe the meteorological monitoring station power supply system.

The DAS, communications equipment and meteorological sensors are powered by one 50-Watt solar panel, buffered through five 100 amp-hr deep cycle gel cell batteries. The aspirator fans and Climatronics wind sensor heaters are powered by three 50-Watt solar panels buffered through two 200 amp-hr deep cycle gel cell batteries. During the winter months (November through April), the aspirator/heater system is also powered by a propane Thermo-Electric Generator (TEG). The isolated DAS and Aspirator power systems can be interconnected during upset conditions through an array of relays managed through the DAS control ports. The DAS monitors battery levels and can connect the two power systems should one run low. The DAS also has algorithms programmed to assess weather conditions and limit heater use when not essential.

3.2.3 Meteorological Monitoring Sensors

- | | | |
|---|---|--|
| Do all sensors appear to be clean, intact, in good condition and well maintained? | <input checked="" type="checkbox"/> Yes | Comments: <u>None.</u> |
| | <input type="checkbox"/> No | |
| Are all sensors operational, online and reporting data? | <input type="checkbox"/> Yes | Comments: <u>10 meter thermistor failed initial audit and was replaced and re-audited.</u> |
| | <input checked="" type="checkbox"/> No | |
| Do all sensors meet EPA criteria for PSD quality sensors? | <input checked="" type="checkbox"/> Yes | Comments: <u>See table below.</u> |
| | <input type="checkbox"/> No | |
| Are spare parts stocked for items which are frequently worn out or broken? | <input checked="" type="checkbox"/> Yes | Comments: <u>Spare props, cups and vanes onsite and spare bearings in field kit.</u> |
| | <input type="checkbox"/> No | |

3.2.4 EPA PSD Meteorological Instrument Standards

Parameter	Instrument Specifications	EPA Standard	Pass?
Air Temperature (2-M, 10-M & Delta-T) – Met One Mdl. 062MP			
Accuracy (2-m & 10-m):	±0.05 °C	±0.5 °C	Yes
Accuracy (Delta-T):	±0.02 °C	±0.1 °C	Yes
Range (Operating Temp):	-50°C to +50°C	-20°C to +30°C	Yes
*Resolution. (2-m & 10-m):	0.01°C	0.1°C	Yes
*Resolution (Delta-T):	0.01°C	0.02°C	Yes
Response Time:	10 seconds	≤1 minute	Yes

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Parameter (Continued)	Instrument Specifications	EPA Standard	Pass?
Relative Humidity – Vaisala Mdl. HMP45AC			
Accuracy:	±2/3% at 0-90/90-100% RH	±1.5°C Dew Point**	Yes
Range:	0.8% to 100% RH	-30°C to +30°C Dew Point**	Yes
*Resolution:	0.1% RH	1% RH	Yes
Response Time:	10 sec	≤30 minutes	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
** EPA criteria in units of dew point, RH and operating temperature ranges meet these criteria.			
Wind Speed – Climatronics Mdl. F460-100075			
Accuracy:	±0.07 m/s or ±1% of obs.	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 65 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<4.0 m (HD Alum. Cups)	≤5 m	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
Wind Direction – Climatronics Mdl. F460-100076			
Accuracy:	±2°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<2.5 m (Heavy Duty Vane)	≤5 m	Yes
Damping Ratio:	>0.4 @10° initial angle	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +60°C	-30°C to + 30°C	Yes
Wind Speed – RM Young Mdl. 05305 Wind Monitor-AQ			
Accuracy:	±0.2 m/s or 1% of observed	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 50 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.4 m/s	≤0.5 m/s	Yes
Distance Constant:	2.1 m	≤5 m	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
Wind Direction – RM Young Mdl. 05305 Wind Monitor-AQ			
Accuracy:	±3°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.5 m/s @10° displacement	≤0.5 m/s	Yes
Distance Constant:	1.2 m	≤5 m	Yes
Damping Ratio:	0.45	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
Barometric Pressure – Vaisala Mdl. PTB101B			
Accuracy:	±0.5 mbar	±3 mbar	Yes
Range:	600 mbar to 1060 mbar	Not Specified	N/A
*Resolution:	0.1 mbar	0.5 mbar	Yes
Response Time:	300 msec	Not Specified	N/A
Operating Temperatures:	-40°C to +60°C	Not Specified	N/A

Pebble 1 PSD Meteorological Station Systems Audit

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Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

Parameter (Continued)	Instrument Specifications	EPA Standard	Pass?
Solar Radiation – LI-COR Mdl. Li-200SX Pyranometer			
Accuracy:	±5% Observed	±5% Observed	Yes
Range:	0 W/m ² to 3000 W/m ²	Not Specified	N/A
*Resolution:	1 W/m ²	10 W/m ²	Yes
Response Time:	10 µs	5 seconds	Yes
Spectral Response:	400 nm to 1,100 nm	285 nm to 2800 nm	No
Operating Temperatures:	-40°C to +65°C	-20°C to +40°C	Yes
Tipping Precipitation – Met One Mdl. 370-0.2mm			
Accuracy:	±1% of 1-3 in/hr (±0.5mm)	±10% observed or ±0.5 mm	Yes
Range:	0-76 mm/hr (0-3 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.2 mm	0.3 mm	Yes
Operating Temperatures:	-50°C to +50°C	Not Specified	N/A
Weighing Precipitation – ETI Mdl. 8205-00710 Noah II			
Accuracy:	±0.01 in (0.254mm)	±10% observed or ±0.5 mm	Yes
Range:	0-152 mm/hr (0-6 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.01in (0.254mm)	0.3 mm	Yes
Operating Temperatures:	-30°C to +50°C	Not Specified	N/A
Evaporation – NovaLynx Mdl. 255-100/200			
Accuracy:	±0.25% over 10" range	Not Specified	N/A
Range:	2" to 10"	Not Specified	N/A
*Resolution:	0.1 mm	Not Specified	N/A
Operating Temperatures:	0°C to +60°C	Not Specified	N/A
* For all instruments; resolutions are the result of instrument type, configuration and DAS programming.			

3.3 Station Location and Siting

3.3.1 Tower

- Do all obstructions exist below a 1:10 slope away from the tower base? ☒ Yes ☐ No Comments: None.
- Is the height of the tower at least 10 meters above the ground? ☒ Yes ☐ No Comments: None.
- Is the tower stable and plumb? ☒ Yes ☐ No Comments: None.
- Is the tower protected from lightning? ☐ Yes ☒ No Comments: There is no lightning protection, but area not prone to strikes.

3.3.2 Temperature and Relative Humidity Sensors

- Are the sensors mounted at least 2-m above open level ground at least 9-m in diameter? ☒ Yes ☐ No Comments: None.
- Are the temperature difference probes at heights of 2-m and 10-m above the ground? ☒ Yes ☐ No Comments: None.
- Are the sensors at a distance greater than four times the height of any obstruction? ☒ Yes ☐ No Comments: None.

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

Is the ground beneath the temperature sensors natural native material? ☒ Yes Comments: None.
☐ No

Is the site free of any natural features that could bias temperature data (e.g. open water, sloping ridge, etc.)? ☒ Yes Comments: None.
☐ No

Is the site free of any man-made features that could bias temperature data (e.g. asphalt, concrete, exhaust plumes, etc.)? ☒ Yes Comments: None.
☐ No

Are the sensors located at least 30 meters from large paved areas? ☒ Yes Comments: None.
☐ No

Is the ambient temperature sensor protected from the influence of solar radiation? ☒ Yes Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shield.
☐ No

Are the temperature difference sensors located in identical aspirated shields? ☒ Yes Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shields.
☐ No

3.3.3 Wind Speed and Wind Direction Sensors

Is the horizontal distance between the instruments and any obstruction at least 10 times the height of the obstruction? ☒ Yes Comments: None.
☐ No

Are the instruments at least 1.5 times nearby building height(s) above the building roof(s), or 10-m high? ☒ Yes Comments: None.
☐ No

Are the wind speed and wind direction sensors stable and plumb? ☒ Yes Comments: None.
☐ No

Is the distance of the sensor on the cross-arm at least twice the diameter of the tower? ☒ Yes Comments: Climatronics Sensors mounted on a crossarm which meets this criterion.
☐ No

Is the distance of the sensor on the cross-arm at least twice the diameter of the tower? ☒ Yes Comments: RM Young sensor mounted on an extension arm which meets this criterion.
☐ No

Is the wind direction sigma theta data being collected according to EPA requirements? ☒ Yes Comments: DAS calculated using Yamartino method and a one-second scan interval.
☐ No

3.3.4 Relative Humidity and Barometric Pressure

Is the relative humidity sensor open to the atmosphere & protected from precipitation? ☒ Yes Comments: Housed in 2-m aspirated shield with temperature sensor.
☐ No

Is the barometric pressure sensor open to atmosphere & protected from precipitation? ☒ Yes Comments: Housed in unsealed shelter, mounted on the wiring panel.
☐ No

3.3.5 Precipitation

Are all obstructions to the wind farther away from the gauge than the obstruction height? ☒ Yes Comments: None.
☐ No

If located in an open and windy area, is a windshield being used? ☒ Yes Comments: Wyoming Wind screen surrounds ETI gauge and Alter type around Met-One.
☐ No

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

Is the area surrounding the rain gauge covered by natural vegetation or gravel? ☒ Yes Comments: None.
☐ No

Is the instrument mounted at least 30 cm above the ground? ☒ Yes Comments: None.
☐ No

Is the instrument mounted level? ☒ Yes Comments: None.
☐ No

3.3.6 Evaporation

Is the evaporation pan above the plane of any obstructions that could cast shadows? ☒ Yes Comments: None.
☐ No

Are the pan and gauge mounted on a stable and level platform? ☒ Yes Comments: Mounted on a 6' x 8' deck supported on adjustable pier blocks.
☐ No

Is the evaporation pan protected from animals? ☒ Yes Comments: Six-foot fence surrounds evaporation pan and gauge.
☐ No

3.3.7 Solar Radiation

Is the instrument situated above the plane of any obstructions that could cast shadows? ☒ Yes Comments: None.
☐ No

Is the sensor situated south of the tower to minimize obstruction from the tower? ☒ Yes Comments: None.
☐ No

4.0 STANDARD OPERATING PROCEDURES

4.1 General

Is the station visited on a preset schedule? ☒ Yes Comments: None.
☐ No

Have standard SOPs been developed, and are they being followed by the operators? ☒ Yes Comments: None.
☐ No

Does the operator follow a preventative maintenance schedule? ☒ Yes Comments: None.
☐ No

Are site visits and maintenance activities properly documented in a Station Log? ☒ Yes Comments: Site visit memos are compiled.
☐ No

Are station operators knowledgeable and competent regarding effective operation? ☒ Yes Comments: None.
☐ No

Have operators attended any formal training for operating met monitoring stations? ☒ Yes Comments: The lead operator has formal training and all operators have onsite experience.
☐ No

Are copies of the NIST certifications for the calibration equipment made available? ☒ Yes Comments: Attached.
☐ No

4.2 DAS and Meteorological Sensors

Are regular multipoint QC checks performed on the DAS? ☒ Yes Comments: DAS audited by virtue of the instrument output values.
☐ No

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

- | | | |
|---|--|--|
| Are regular multipoint QC checks performed on the meteorological sensors? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |
| Are the sensors visually inspected for defects and problems? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |
| Are ambient conditions compared with sensor readings from the DAS? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>DAS output compared to Iliamna Airport weather station.</u> |
| Are data frequently reviewed for reasonableness and completeness? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |
| Is a copy of the datalogger program made available for review? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |

5.0 DOCUMENTATION

5.1 System Reference and Maintenance Manuals

- | | | |
|---|--|--|
| Does the operator have all required DAS and meteorological instrument manuals? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>On-site and at HCG offices.</u> |
| Does the operator have configuration and wiring schematics specific to the station? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>Operator carries wiring schematics.</u> |

5.2 Station Monitoring Plan and Report Forms

- | | | |
|---|--|---|
| Is the Monitoring/QA plan comprehensive and reflective of the actual installation? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |
| Does the Monitoring/QA plan indicate the intended use for the data collected during the monitoring program? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>Collect PSD quality data to meet dispersion modeling requirements and satisfy mine/transportation design requirements.</u> |
| Does the system outlined in the QA plan meet the objectives outlined above? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>PSD quality installation.</u> |
| Does the QA Plan indicate the intended schedule for reports to be submitted? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |
| Does the station have an activity log? | <input type="checkbox"/> Yes
<input checked="" type="checkbox"/> No | Comments: <u>Site visit memos written after each visit to supplant a log book.</u> |
| Does the station have a formal Site Visit and Checklist Form? | <input type="checkbox"/> Yes
<input checked="" type="checkbox"/> No | Comments: <u>No formal checklist used.</u> |
| Does the station have an adequate Operations Manual? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>Monitoring/QA plan and equipment manuals.</u> |
| Does the station have an adequate calibration form and copies of previous audits & cals? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |
| Are report forms and site logs properly completed and current? | <input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No | Comments: <u>None.</u> |

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

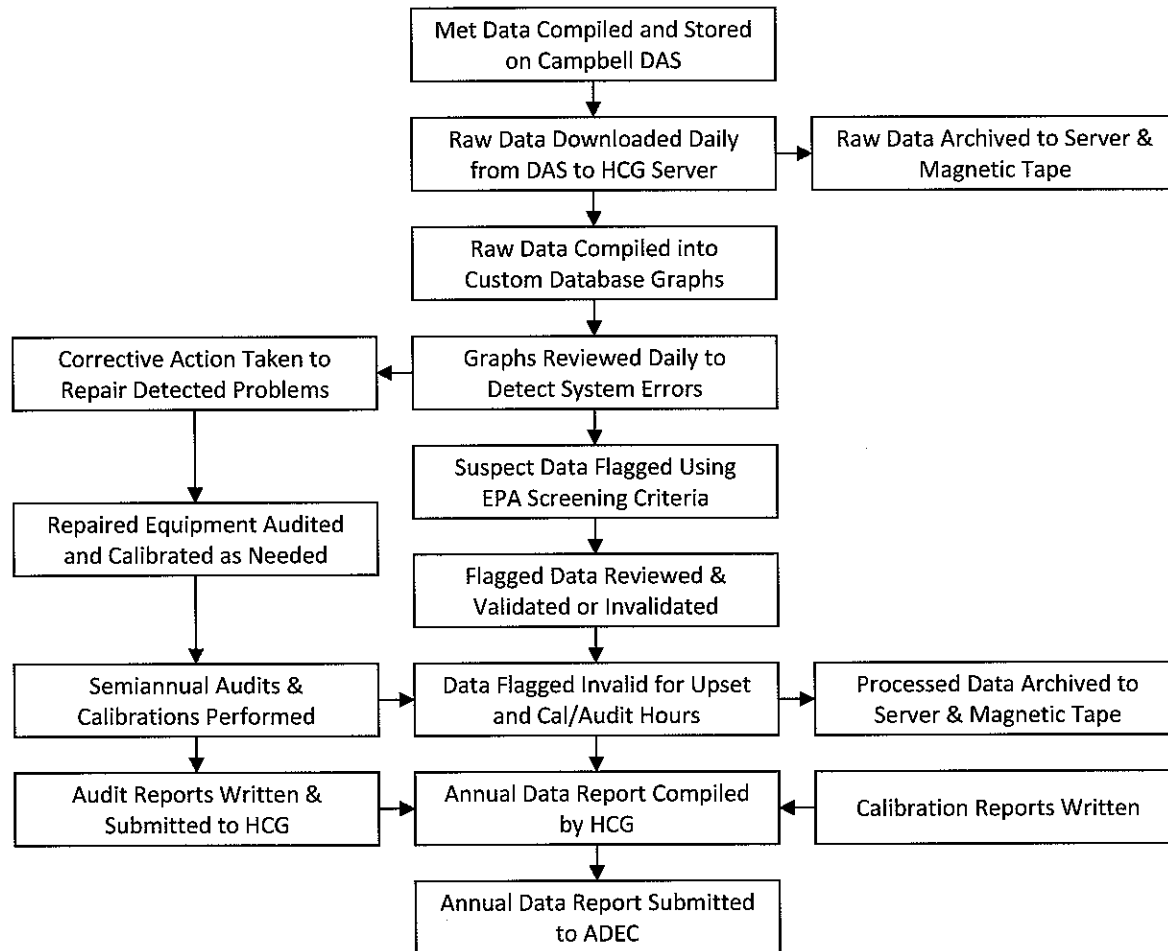
Witnesses: Dominic Shallies

Auditor: Eric Brudie

6.0 DATA PROCESSING and VALIDATAION

6.1 Overall Data Management

- Diagram the flow of data from monitoring equipment to submission of a final report.



6.2 Data Collection and Initial Data Review

Is the station polled and data downloaded on a regular basis?

- ☒ Yes
☐ No

Comments: Daily via RF modem and telephony modem.

Are the monitoring station data reviewed on a regular basis?

- ☒ Yes
☐ No

Comments: Data imported into custom graphs and reviewed 5-6 days per week.

Are the monitoring station data screened on a regular basis?

- ☒ Yes
☐ No

Comments: Data screened using EPA criteria prior to summary compilations.

Are procedures in place for backing up raw data?

- ☒ Yes
☐ No

Comments: Raw data files are backed up on the HCG server and on magnetic tape.

Are written procedures for data handling available for the project?

- ☒ Yes
☐ No

Comments: None.

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

- Describe the data polling process and initial data evaluation.

Data is downloaded from the station on a daily basis using a dedicated data polling computer located at the HCG office. The raw *.dat file is appended to the existing raw station data file located on the HCG server, which is backed up to tape daily. The raw data are copied to an Access/Excel database file which generates custom graphs of the various meteorological and operational parameters. These graphs are reviewed 5-6 days per week in order to identify station problems. This graphical data review is the frontline of maintaining a complete and defensible dataset. Station upsets are instantly identified and repaired within days. Copies of both the raw unadjusted data and the custom database files are retained for a minimum of 5 years.

6.3 Corrective Actions

Are procedures established for initiating corrective actions during data processing?

☒ Yes
☐ No

Comments: Daily graphical data review and subsequent reactions.

- Describe procedures for initiating, tracking and closing corrective actions.

When nonconformance issues are recognized during graphical review, the Lead Operator/Data Manager plans and executes corrective action. A calibration check is performed on any sensor which is repaired or replaced during the action. A site visit memo outlining the nature of the problem and repairs undertaken is written and saved to the station file. Any quantifiable error is also documented for possible data validation. The Operator/Data Manager ensures the erroneous data are flagged for the period from initial noncompliance until repair and calibration are affected.

6.4 Data Validation

Are data validation procedures established and in use?

☒ Yes
☐ No

Comments: None.

Are adjusted and unadjusted data sets maintained?

☒ Yes
☐ No

Comments: Both are backed up on the HCG server and magnetic tape.

- Describe the initial data validation procedure.

Data is compiled in a custom Excel spreadsheet programmed to evaluate meteorological data against EPA recommended PSD data screening criteria. The data are screened for events such as; extended periods of zero wind speed (indicating icing or worn bearings), temperatures outside of the known monthly max/min for the area, etc. Nonconforming data are flagged by the screening program for further investigation. Also, data periods for individual parameters are flagged for times when the corresponding instrument was undergoing field servicing, calibrations or audits. Periods when instruments are known to have been out of calibration or malfunctioning are also flagged.

- Describe procedures for validating and invalidating flagged data (outliers).

Data flagged during the screening process described above are manually reviewed. If the data have a quantifiable, consistent and documented bias, they may be adjusted and then validated. Specific guidelines are detailed in the Plan. Data which have been flagged by the screening program are also compared to local weather conditions as determined from other sources. Examples where data flagged during screening may be validated include periods when winds were known to have been exceptionally calm at nearby stations or extreme temperatures outside the historical max/min were witnessed. At this point, flagged data are permanently validated and left in the database or invalidated and removed from the database. Data removed from the database are replaced with an alphanumeric code to indicate the reason for invalidation.

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

- Identify those responsible for data validation.

Name: Dominic Shallies

Name: Rebecca Van Wyck

Position: Lead Operator & Data Manager

Position: Data Management

Affiliation: Hoefler Consulting Group, Inc.

Affiliation: Hoefler Consulting Group, Inc.

6.5 Data Capture

- Identify the desired data capture rate for the monitoring data.

Target rate for PSD Quality Meteorological Monitoring Data is 90%.

Is the desired data capture rate being met for each data type?

☒ Yes Comments: None.
☐ No

6.6 Data Reporting

Are quarterly and annual data reports being submitted for the site?

☒ Yes Comments: None.
☐ No

Are qualified staff personnel reviewing data reports prior to submittal?

☒ Yes Comments: None.
☐ No

Is finalized data set submitted with report to ADEC?

☒ Yes Comments: None.
☐ No

7.0 QUALITY ASSURANCE AND QUALITY CONTROL

7.1 Quality Assurance Program

Has a quality assurance plan been written describing quality assurance procedures?

☒ Yes Comments: None.
☐ No

Is a copy of the plan available to field and data processing personnel?

☒ Yes Comments: None.
☐ No

Has the quality assurance plan been approved by the ADEC?

☒ Yes Comments: None.
☐ No

- Identify those person(s) responsible for updating the plan SOPs.

Name: Steve Mackey

Position: Project Manager

Affiliation: Hoefler Consulting Group, Inc.

7.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan?

☒ Yes Comments: None.
☐ No

Does the Plan correctly document PSD accuracy limits for calibrating and auditing?

☒ Yes Comments: None.
☐ No

Have audits been conducted on the suggested schedule of every six months?

☒ Yes Comments: None.
☐ No

Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Date: Sep 2-4, 2007

Witnesses: Dominic Shallies

Auditor: Eric Brudie

- Identify the person(s) responsible for conducting audits on the monitoring instrumentation.

Name: Eric Brudie

Position: Field Auditor

Affiliation: Hoefler Consulting Group, Inc.

8.0 COMMENTS AND SUGGESTIONS

- Prepare and compile site specific station checklists and visit forms.

APPENDIX B
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Sep 2, 2007

DAS TIME AUDIT

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.

Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.

Comments: Audit of station with CR10X datalogger.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
15:46:30	15:46:28	-00:02	PASS

TEMPERATURE SENSORS & AT AUDIT

Lower Height: 2.0 Meters Upper Height: 9.7 Meters

2-M Thermistor: Make: Met One Model: 062MP S.N.#: E3383 # 1/2 Range: -50 to 50 °C
10-M Thermistor: Make: Met One Model: 062MP S.N.#: E3383 # 2/2 Range: -50 to 50 °C
Audit Digital Thermometer: Make: Van Waters & Rogers Model: 61220/601 S.N.#: 51091749 Range: -40 to 150 °C
Audit Probe: Make: Van Waters & Rogers Model: 61220/604 S.N.#: 240301145 Range: -40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:

Begin: 1430

End: 1500

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Hot	35 to 45	36.42	36.70	0.28	Pass	37.10	0.68	Fail	0.40	Fail
Warm	15 to 25	19.36	19.48	0.12	Pass	19.67	0.31	Pass	0.19	Fail
Ice Bath	0	0.00	0.14	0.14	Pass	0.19	0.19	Pass	0.05	Pass
Cold	-15 to -25	-15.69	-15.61	0.08	Pass	-15.61	0.08	Pass	0.00	Pass
Very Cold	-35 to -45	-38.60	-38.92	-0.32	Pass	-38.92	-0.32	Pass	0.00	Pass
Max Abs. Error				0.32	PASS	0.68		FAIL	0.40	FAIL

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).

Comments: Thermistors failed for unknown reason.

RELATIVE HUMIDITY SENSOR AUDIT

Height: 2.0 Meters

RH Sensor: Make: Vaisala Model: HMP45ASP S.N.#: A1040018 Range: 0.8 to 100 % RH
Audit Equipment: Make: Vaisala Model: HMI 41 S.N.#: X0650080 Range: 0 to 100 % RH
Audit Equipment: Probe# HMI41 X07450015

RH COLLOCATED STANDARD TEST								
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?
901	96.2	8.7	8.1	100.0	8.3	8.3	0.2	Pass
950	92.5	9.5	8.5	100.0	8.9	8.9	0.4	Pass
1140	87.4	10.2	8.2	88.8	9.9	8.1	-0.1	Pass
1412	69.0	12.2	6.6	70.5	12.0	6.8	0.2	Pass
Max Abs. Error							0.4	PASS

PSD Limits: Max Absolute Error > 1.5°C Dew Point.

Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td = b \cdot \frac{\nu}{(a - \nu)}$, where $\nu = a \cdot Ta / (b + Ta) + \ln(RH)$, and $a = 17.27$, $b = 237.7^\circ\text{C}$.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallicks
Witness(s): Dominic Shallicks

Station Site: Pebble 1
Audit Date: Sep 2, 2007

• HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS

Height: 11.2 Meters

Wind Spd Sensor:	Make:	Climatronics	Model:	100075	S.N.#:	5007	Cup #:	2284	Range:	0-60	m/s
Wind Dir Sensor:	Make:	Climatronics	Model:	100076	S.N.#:	4691	Vane #:	1440	Range:	0-360	Deg
Spd Audit Eq:	Low Spd:	RM Young	Model:	18811	S.N.#:	CA02136	Torque:	Watters Mdl 366-3	S.N.#:	4864	
Spd Audit Eq:	High Spd:	RM Young	Model:	18801	S.N.#:	CA01674					
Dir Audit Eq:	Linearity:	Climatronics	Model:	101984	S.N.#:	145	Torque:	Honeywell Mdl 366-0	S.N.#:	5042	
Dir Audit Eq:	Compass:	Brunton	Model:	11-F5008	S.N.#:	5080799319	Magnetic Declin:	17.3	E of N		

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.71	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
Max Abs. Error			0.00	0.0	PASS

Time: Begin: 1330 End: 1333

Conversion: Heavy Duty AI Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST				
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg
Input Description				Pass/Fail?
Koktuk Mtn		292.1	293.8	1.7
Peak 1984		9.7	10.1	0.4
Pebble 5A		87.9	91.1	3.2
Cone Mtn		144.3	146.9	2.6
Compass		216.0	217.7	1.7
Compass		270.0	270.0	0.0

Time: Begin: 1200 End: 1235
Max Abs. Error: 3.2
Mean Abs. Error: 1.6
PASS
GOOD

CROSSARM-VANE ACCUR. & LIN. TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0	180.2	0.2	Pass
West	270.0	269.5	-0.5	Pass
North	360.0	0.1	0.1	Pass
East	90.0	90.8	0.8	Pass
North	360.0	0.1	0.1	Pass
West	270.0	270.9	0.9	Pass
South	180.0	180.9	0.9	Pass
East	90.0	92.2	2.2	Pass
Max Abs. Error			2.2	PASS
Mean Abs. Error			0.7	PASS

Time: Begin: 1334 End: 1337

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	30.8	0.8	Pass	330.0	332.8	2.8	Pass
60.0	60.9	0.9	Pass	355.0	357.2	2.2	Pass
90.0	91.6	1.6	Pass	30.0	30.8	0.8	Pass
120.0	121.2	1.2	Pass	60.0	61.0	1.0	Pass
150.0	150.8	0.8	Pass	90.0	91.2	1.2	Pass
180.0	181.2	1.2	Pass	120.0	121.5	1.5	Pass
210.0	210.4	0.4	Pass	150.0	150.8	0.8	Pass
240.0	241.5	1.5	Pass	180.0	180.9	0.9	Pass
270.0	271.5	1.5	Pass	Max Abs. Error		2.8	PASS
300.0	301.1	1.1	Pass	Mean Abs. Error		1.2	PASS

Time: Begin: 1340 End: 1343

WIND SPD TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.0049	<0.003	PASS
New	0.0049	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.104	0.100	PASS
New	0.104	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST				
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg
Input Description				Pass/Fail?
Instrument/DAS Changed-				
No Post-Audit Test				

Time: Begin: End:
Max Abs. Error:
Mean Abs. Error:

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.

Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Sep 2, 2007

• HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AQ

Height: 10.4 Meters

Wind Sensor: Make: RM Young Model: 05305 AQ S.N.#: 67731 Prop #: 63798 Range: 0-360 Deg
Spd Audit Eq: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864
Spd Audit Eq: High Spd: RM Young Model: 18801 S.N.#: CA01674
Dir Audit Eq: Linearity: RMY Mdl 18112 Bench Stand S.N.#: None Torque: RMY Mdl 18331 Torque Gauge S.N.#: None
Dir Audit Eq: Compass: Brunton Model: 11-F5008 S.N.#: 5080799319 Magnetic Declin: 17.3 E of N

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.06	0.01	N/A	Pass
1000	5.12	5.06	N/A	-1.2	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.63	N/A	0.1	Pass
10000	51.20	51.36	N/A	0.3	Pass
Max Abs. Error			0.01	1.2	PASS

Time: Begin: 1245 End: 1250

Conversion: Model 08254 Prop: m/s = 0.00512*rpm.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST				
Box Aligned South?	✓	Input Deg	DAS Deg	Error Deg
Input Description				Pass/Fail?
Koktuk Mtn		292.1	292.0	-0.1
Peak 1984		9.7	10.8	1.1
Pebble 5A		87.9	91.6	3.7
Cone Mtn		144.3	147.3	3.0
Compass		216.0	215.9	-0.1
Compass		270.0	268.5	-1.5

Time: Begin: 1200 End: 1235
Max Abs. Error: 3.7
Mean Abs. Error: 1.6
PASS
GOOD

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	30.4	0.4	Pass	150.0	150.6	0.6	Pass	270.0	268.4	-1.6	Pass
60.0	60.9	0.9	Pass	180.0	180.1	0.1	Pass	300.0	297.8	-2.2	Pass
90.0	91.2	1.2	Pass	210.0	209.7	-0.3	Pass	330.0	327.2	-2.8	Pass
120.0	120.8	0.8	Pass	240.0	239.0	-1.0	Pass	355.0	352.3	-2.7	Pass

Time: Begin: 1250 End: 1254
Max Abs. Error: 2.8
Mean Abs. Error: 1.2
PASS
PASS

WIND SPD TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	0.005	PASS
New	0.014	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/Fail?
In-Situ	11.0	9.0	PASS
New	11.0	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST				
Box Aligned South?	✓	Input Deg	DAS Deg	Error Deg
Input Description				Pass/Fail?
Instrument/DAS Changed-				
No Post-Audit Test				

Time: Begin: End:
Max Abs. Error:
Mean Abs. Error:

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: None.

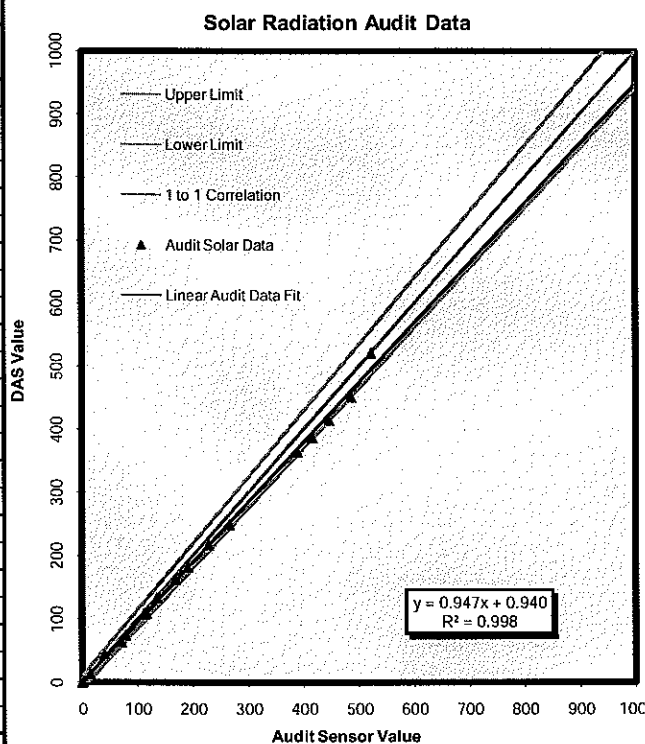
Station Site: Pebble 1
Audit Date: Sep 2, 2007

Audit Inst Cal Data	
Cal. Date: 07/26/07	
Audit Inst	Offset Amount
24.11	-0.11
26.28	-0.10
28.10	-0.10
30.09	-0.09
Intercept	-0.18
Slope	0.0031

PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

Station Sensor:	Make: <u>Li-Cor</u>	Model: <u>Li-200SX</u>	S.N.#: <u>PY49464</u>	Range: <u>0-3000</u>	W/m²
Audit Sensor:	Make: <u>Eppley</u>	Model: <u>PSP</u>	S.N.#: <u>34377F3</u>	Range: <u>0-2800</u>	W/m²

SOLAR RADIATION COLLOCATED STANDARD TEST						
Data Hr	Audit	DAS	Error	Allow Err	Error	Pass/
AST	W/m ²	W/m ²	W/m ²	W/m ²	% Input	Fail?
905	77.1	74.3	-2.8	±13.9	-3.6%	Pass
950	132.9	132.3	-0.6	±16.6	-0.5%	Pass
1128	520.4	519.7	-0.7	±36.0	-0.1%	Pass
1540	189.4	181.2	-8.2	±19.5	-4.3%	Pass
725	13.8	13.7	0.0	±10.7	n/a	Pass
900	38.6	44.1	5.5	±11.9	n/a	Pass
1000	109.9	107.0	-2.9	±15.5	-2.6%	Pass
1100	265.0	248.1	-16.9	±23.3	-6.4%	Pass
1200	414.3	386.1	-28.2	±30.7	-6.8%	Pass
1300	484.6	450.4	-34.2	±34.2	-7.1%	Pass
1400	445.1	414.7	-30.4	±32.3	-6.8%	Pass
1500	388.6	363.6	-25.0	±29.4	-6.4%	Pass
1600	226.6	216.8	-9.8	±21.3	-4.3%	Pass
1700	166.9	160.8	-6.1	±18.3	-3.7%	Pass
1800	115.2	109.2	-6.0	±15.8	-5.2%	Pass
1900	69.3	63.3	-6.0	±13.5	-8.7%	Pass
2000	14.1	12.9	-1.2	±10.7	n/a	Pass
2100	1.1	0.9	-0.2	±10.1	n/a	Pass
2200	0.0	0.0	0.0	±10.0	n/a	Pass
Corr. Val	0.9990	Max Abs. Percent Error			8.7%	PASS
R ² Value	0.9980	Intercept	0.9	Slope	0.9478	FAIL



Begin Date: 09/02/07 **End Date:** 09/03/07

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R² > 0.995.

Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Sep 2, 2007

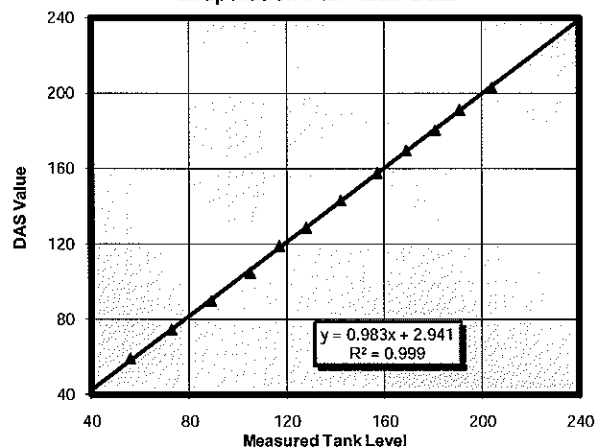
• EVAPORATION GAUGE AUDIT

Height: 0.6 Meters

Evaporation Gauge: Make: NovaLynx Model: 255-100 S.N.#: 695 Range: 40-254 mm
Evaporation Pan: Make: NovaLynx Model: 255-200 S.N.#: None Range: 0-254 mm

EVAPORATION PAN STAGE/HEIGHT TEST						
Pan inch	Pan mm	DAS mm	Level + Intcpt	Error mm	Error % Input	Pass/Fail?
	56.0	58.9	56.0	2.9	5.2%	Pass
	73.0	74.3	73.0	1.3	1.8%	Pass
	89.0	90.0	89.0	1.0	1.1%	Pass
	105.0	104.6	105.0	-0.4	-0.4%	Pass
	117.0	118.9	117.0	1.9	1.6%	Pass
	128.0	128.6	128.0	0.6	0.5%	Pass
	142.0	143.2	142.0	1.2	0.8%	Pass
	157.0	157.6	157.0	0.6	0.4%	Pass
	169.0	169.5	169.0	0.5	0.3%	Pass
	181.0	180.5	181.0	-0.5	-0.3%	Pass
	191.0	191.0	191.0	0.0	0.0%	Pass
	204.0	203.1	204.0	-0.9	-0.4%	Pass
Max Abs. Error				2.9	5.2%	PASS
Intercept				2.9	Slope 0.9832	PASS

Evaporation Pan Audit Data



Time: Begin: 1310 End: 1405

PSD Limits: Max Absolute Error > 10 % of Input adjusted for slope/intercept.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallices
Witness(s): Dominic Shallices

Station Site: Pebble 1
Audit Date: Sep 3-4, 2007

DAS TIME AUDIT

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.

Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.

Comments: Audit of station with CR1000 datalogger.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
16:02:30	16:01:30	-01:00	PASS

TEMPERATURE SENSORS & AT AUDIT

Lower Height: 2.0 Meters Upper Height: 9.7 Meters

2-M Thermistor: Make: Met One Model: 062MP S.N.#: E3361 # 1/2 Range: -50 to 50 °C
10-M Thermistor: Make: Met One Model: 062MP S.N.#: E3361 # 2/2 Range: -50 to 50 °C
Audit Digital Thermometer: Make: Van Waters & Rogers Model: 61220/601 S.N.#: 51091749 Range: -40 to 150 °C
Audit Probe: Make: Van Waters & Rogers Model: 61220/604 S.N.#: 240301145 Range: -40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:

Begin: 1315

End: 1340

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Hot	35 to 45	35.33	35.43	0.10	Pass	35.43	0.10	Pass	0.00	Pass
Warm	15 to 25	21.02	21.04	0.02	Pass	21.04	0.02	Pass	0.00	Pass
Ice Bath	0	0.15	0.12	-0.03	Pass	0.12	-0.03	Pass	0.00	Pass
Cold	-15 to -25	-23.05	-23.00	0.05	Pass	-23.00	0.05	Pass	0.00	Pass
Very Cold	-35 to -45	-33.25	-33.22	0.03	Pass	-33.22	0.03	Pass	0.00	Pass
Max Abs. Error			0.10	PASS		0.10	PASS		0.00	PASS

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).

Comments: Replacement thermistors.

RELATIVE HUMIDITY SENSOR AUDIT

Height: 2.0 Meters

RH Sensor: Make: Vaisala Model: HMP45C-L S.N.#: B4850667 Range: 0.8 to 100 % RH
Audit Equipment: Make: Vaisala Model: HMI 41 S.N.#: X0650080 Range: 0 to 100 % RH
Audit Equipment: Probe# HMI41 X07450015

RH COLLOCATED STANDARD TEST								
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?
1050	67.8	10.2	4.4	67.2	10.1	4.3	-0.1	Pass
1350	58.2	12.2	4.3	58.4	12.2	4.3	0.0	Pass
1713	71.4	11.1	6.2	71.6	11.3	6.4	0.2	Pass
Max Abs. Error							0.2	PASS

PSD Limits: Max Absolute Error > 1.5°C Dew Point.

Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td = b \cdot \gamma / (a - \gamma)$, where $\gamma = a \cdot Ta / (b + Ta) + \ln(RH)$, and $a = 17.27$, $b = 237.7^\circ\text{C}$.

Comments: New RH sensor.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Sep 3-4, 2007

• HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS

Height: 11.2 Meters

Wind Spd Sensor: Make: Climatronics Model: 100075 S.N.#: 3977 Cup #: 2284 Range: 0-60 m/s
Wind Dir Sensor: Make: Climatronics Model: 100076 S.N.#: 4661 Vane #: 1440 Range: 0-360 Deg
Spd Audit Eq: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864
Spd Audit Eq: High Spd: RM Young Model: 18801 S.N.#: CA01674
Dir Audit Eq: Linearity: Climatronics Model: 101984 S.N.#: 145 Torque: Honeywell Mdl 366-0 S.N.#: 5042
Dir Audit Eq: Compass: Brunton Model: 11-F5008 S.N.#: 5080799319 Magnetic Declin: 17.3 E of N

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.71	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
Max Abs. Error			0.00	0.0	PASS

Time: Begin: 1530 End: 1535

Conversion: Heavy Duty AI Cups: m/s = rpm+42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST					
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Input Description					
New Instrument/DAS-					
No In-Situ Test					
Time: Begin:			Max Abs. Error		
End:			Mean Abs. Error		

CROSSARM-VANE ACCUR. & LIN. TEST					
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?	
South	180.0	179.2	-0.8	Pass	
West	270.0	270.9	0.9	Pass	
North	360.0	0.7	0.7	Pass	
East	90.0	88.9	-1.1	Pass	
North	360.0	0.6	0.6	Pass	
West	270.0	271.0	1.0	Pass	
South	180.0	180.0	0.0	Pass	
East	90.0	90.6	0.6	Pass	
Max Abs. Error			1.1	PASS	
Mean Abs. Error			0.7	PASS	

Time: Begin: 1551 End: 1554

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	29.2	-0.8	Pass	330.0	330.8	0.8	Pass
60.0	58.4	-1.6	Pass	355.0	355.3	0.3	Pass
90.0	89.4	-0.6	Pass	30.0	29.2	-0.8	Pass
120.0	120.3	0.3	Pass	60.0	58.7	-1.3	Pass
150.0	149.8	-0.2	Pass	90.0	89.3	-0.7	Pass
180.0	179.3	-0.7	Pass	120.0	120.4	0.4	Pass
210.0	208.7	-1.3	Pass	150.0	149.8	-0.2	Pass
240.0	239.9	-0.1	Pass	180.0	178.8	-1.2	Pass
270.0	270.1	0.1	Pass	Max Abs. Error		1.6	PASS
300.0	300.2	0.2	Pass	Mean Abs. Error		0.6	PASS

Time: Begin: 1537 End: 1540

WIND SPD TORQUE TEST				
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?	
In-Situ	0.0049	<0.003	PASS	
New	0.0049	N/A	N/A	

WIND DIR TORQUE TEST				
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?	
In-Situ	0.104	0.070	PASS	
New	0.104	N/A	N/A	

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST					
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Input Description					
Koktuk Mtn		292.1	292.1	0.0	Pass
Gnd Hog Spire 2488		216.5	215.3	-1.2	Pass
Cone Mtn		144.3	144.2	-0.1	Pass
Pebble 5A		87.9	86.9	-1.0	Pass
Peak 1984		9.7	9.9	0.2	Pass
Compass		351.0	350.1	-0.9	Pass
Time: Begin:		1600	Max Abs. Error	1.2	PASS
End:		1630	Mean Abs. Error	0.6	GOOD

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.

Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: Wind speed sensor SN 5007 got wet during audit and was replaced by sensor SN 3977. Wind direction sensor SN 4691 was replaced by SN 4661 for routine bearing maintenance.

Station Site: Pebble 1
Audit Date: Sep 3-4, 2007

Height: 10.4 **Meters**

Time:	Begin:	1600	Max Abs. Error	3.1	PASS
	End:	1630	Mean Abs. Error	1.6	GOOD

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METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Sep 3-4, 2007

• BAROMETRIC PRESSURE SENSOR AUDIT

Height: N/A Meters

Pressure Sensor: Make: Vaisala Model: PTB101B S.N.#: A0710039 Range: 600-1060 hPa
Audit Equipment: Make: PRETEL Model: AltiPlus A2 S.N.#: 27806 Range: 470-1040 hPa

BP COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/Fail?
1446	27.90	27.80	941.5	940.9	-0.6	Pass
Max Abs. Error					0.6	PASS

Audit Inst Cal Data	
Cal. Date: 07/26/07	
Audit Inst	Offset Amount
24.11	-0.11
26.28	-0.10
28.10	-0.10
30.09	-0.09
Intercept	-0.18
Slope	0.0031

PSD Limits: Max Absolute Error > 3mb (0.3kPa).

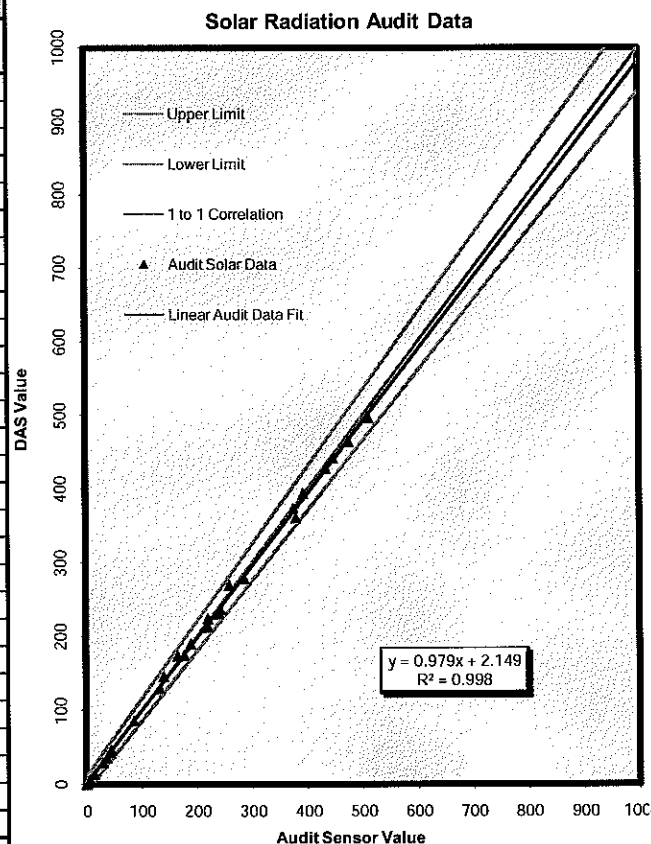
Comments: None.

• SOLAR RADIATION SENSOR AUDIT

Height: 4.2 Meters

Station Sensor: Make: Li-Cor Model: Li-200SX S.N.#: PY56427 Range: 0-3000 W/m²
Audit Sensor: Make: Eppley Model: PSP S.N.#: 34377F3 Range: 0-2800 W/m²

SOLAR RADIATION COLLOCATED STANDARD TEST						
Data Hr AST	Audit W/m ²	DAS W/m ²	Error W/m ²	Allow Err W/m ²	Error % Input	Pass/Fail?
1204	219.4	223.3	3.9	±21.0	1.8%	Pass
925	284.4	277.9	-6.5	±24.2	-2.3%	Pass
1333	391.3	392.6	1.3	±29.6	0.3%	Pass
708	188.0	189.5	1.5	±19.4	0.8%	Pass
1030	510.4	495.5	-14.9	±35.5	-2.9%	Pass
1140	377.8	359.8	-18.0	±28.9	-4.8%	Pass
1600	84.6	85.5	0.9	±14.2	1.1%	Pass
1700	42.1	42.2	0.1	±12.1	n/a	Pass
1800	44.7	46.0	1.3	±12.2	n/a	Pass
1900	28.6	28.2	-0.5	±11.4	n/a	Pass
2000	13.4	12.4	-1.0	±10.7	n/a	Pass
2100	1.3	1.0	-0.2	±10.1	n/a	Pass
2200	0.0	0.0	0.0	±10.0	n/a	Pass
900	176.6	173.7	-2.9	±18.8	-1.6%	Pass
1000	239.1	230.2	-8.9	±22.0	-3.7%	Pass
1100	220.4	211.8	-8.6	±21.0	-3.9%	Pass
1200	242.1	236.1	-6.0	±22.1	-2.5%	Pass
1300	374.2	373.5	-0.7	±28.7	-0.2%	Pass
1400	432.5	427.2	-5.3	±31.6	-1.2%	Pass
1500	445.7	441.9	-3.8	±32.3	-0.9%	Pass
1700	164.5	173.1	8.6	±18.2	5.2%	Pass
1800	257.9	268.4	10.5	±22.9	4.1%	Pass
1900	138.7	145.1	6.4	±16.9	4.6%	Pass
2000	35.9	35.3	-0.7	±11.8	n/a	Pass
700	5.0	6.0	1.0	±10.2	n/a	Pass
800	43.1	45.3	2.2	±12.2	n/a	Pass
900	132.0	129.2	-2.8	±16.6	-2.1%	Pass
1100	474.2	463.5	-10.7	±33.7	-2.3%	Pass
Corr. Val	0.9994	Max Abs. Percent Error			5.2%	PASS
R ² Value	0.9988	Intercept	2.1	Slope	0.9796	PASS



Begin Date: 09/03/07 End Date: 09/05/07

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R² > 0.995.

Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.

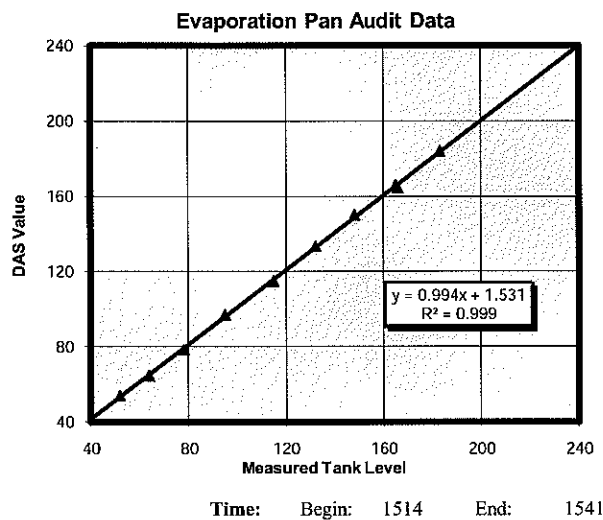
Comments: New instrument.

Station Site: Pebble 1
Audit Date: Sep 3-4, 2007

Station Site: Pebble 1
Audit Date: Sep 3-4, 2007

Height: 0.6 **Meters**

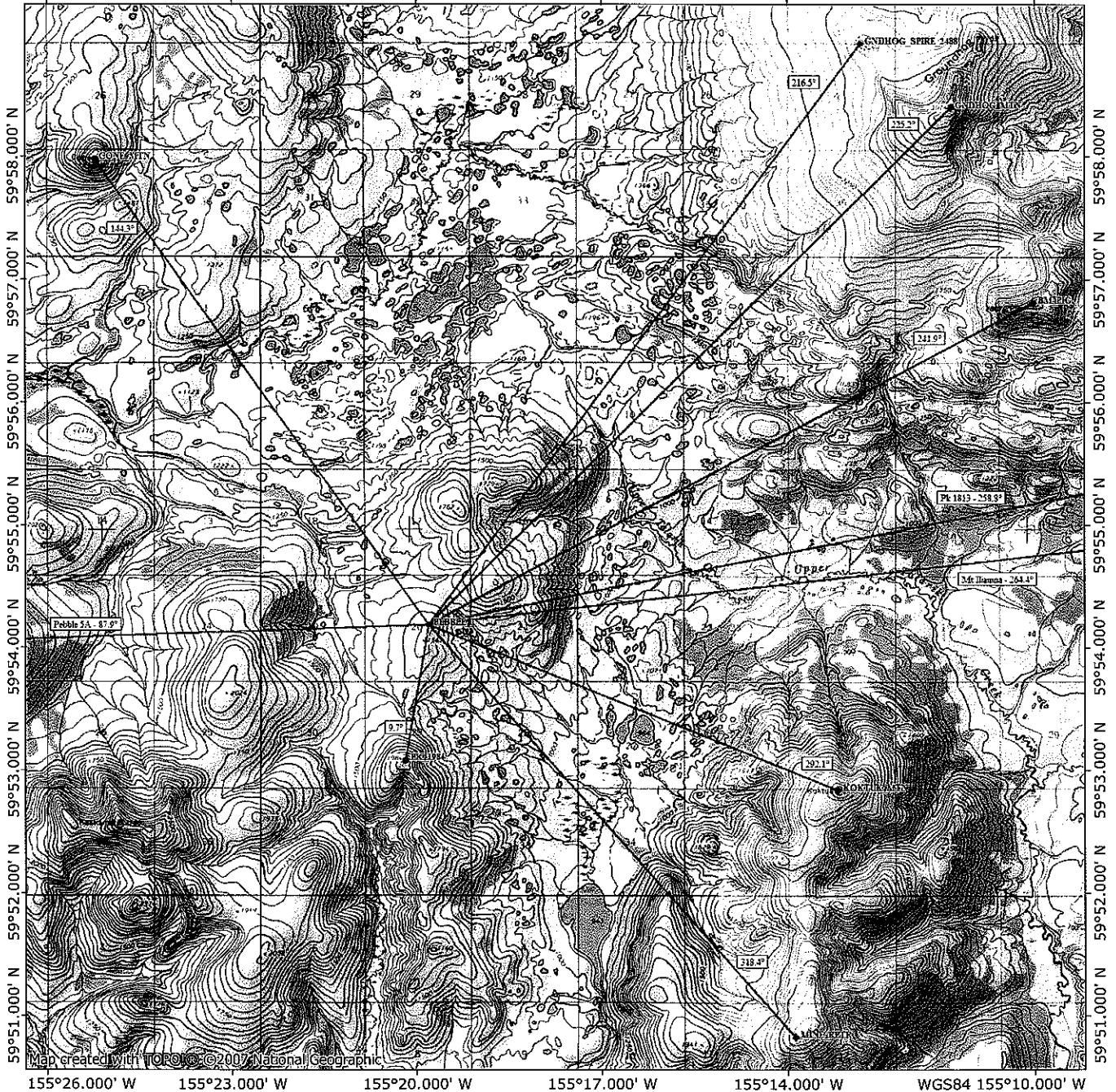
EVAPORATION PAN STAGE HEIGHT TEST						
Pan inch	Pan mm	DAS mm	Level + Intept	Error mm	Error % Input	Pass/ Fail?
	165.0	165.7	165.0	0.7	0.4%	Pass
	183.0	183.9	183.0	0.9	0.5%	Pass
	166.0	164.6	166.0	-1.4	-0.8%	Pass
	148.0	150.0	148.0	2.0	1.4%	Pass
	132.0	133.6	132.0	1.6	1.2%	Pass
	115.0	114.8	115.0	-0.2	-0.2%	Pass
	95.0	97.1	95.0	2.1	2.2%	Pass
	78.0	78.4	78.0	0.4	0.5%	Pass
	64.0	64.4	64.0	0.4	0.6%	Pass
	52.0	53.8	52.0	1.8	3.5%	Pass
Max Abs. Error				2.1	3.5%	PASS
Intercept			1.5	Slope	0.9941	PASS



Page 6 of 6

Pebble 1 TOPO Alignment Map - 59°54.179' N, 155°19.806' W WGS84

155°26.000' W 155°23.000' W 155°20.000' W 155°17.000' W 155°14.000' W WGS84 155°10.000' W



TN⁺ / MN
17 1/2°
10/20/07

APPENDIX C
AUDIT EQUIPMENT CALIBRATION CERTIFICATES



Alaska Calibration, Inc.

Troubleshooting, Repair and Calibration of
Test & Measurement Equipment

Block
unit

CERTIFICATE OF CALIBRATION

WORK ORDER NO. 9665

TRACEABILITY CERTIFICATE 07041701

ISSUED TO: Hoefler Consulting Group, Inc

INSTRUMENT: 61220-601, Digital Thermometer & 61220-604 Temperature Probe, Fisher Scientific, S/N's 51091749 & 240301145

DATE DONE: April 17, 2007

DATE DUE: April 16, 2008

CERTIFIED BY METROLOGIST: *A.J. Grabowski*
A.T. Grabowski

TEMPERATURE: 69°F HUMIDITY: 43% RH

INCOMING STATUS: This instrument was in (XX) was out of () tolerance when received.

CALIBRATION APPARATUS USED

MODEL	NOMENCLATURE	MFR	SERIAL NO.	DUE DATE
MK3900	Temperature Chamber	Delta Design	89308	NCR
32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Made as Needed	Natural Phys. Const.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	A135	11/13/07
DP41-RTD	Digital Thermometer	Omega Engineering	4381337	11/13/07

CHARTED TEMPERATURE READINGS

Laboratory Probe	Test Instrument Thermometer	System Uncertainty
-50.013°C	- 50.025°C	0.009°C
-25.038°C	- 25.052°C	0.009°C
0.007°C	0.011°C	0.009°C
+ 25.033°C	+25.047°C	0.009°C
+50.004°C	+50.012°C	0.009°C

RANGE/LIMITATIONS: Calibrated over entire range.

PROCEDURE & ACCURACY STATEMENT: T.O. 33K5-4-42-1. Accuracy: See Chart Above.

NIST TRACEABLE REPORT NUMBERS

MODEL	NOMENCLATURE	MFR	DUE DATE	REPORT NO.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	11/13/07	G209372
-32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Natural Phys. Const.	Made as Needed

COMPLIANCE

Alaska Calibration Inc.'s calibration practices and procedures comply with the requirements of ANSI/ISO/ Z540-1 and ANSI/ISO/IEC 17025: 2000 and relevant requirements of ISO 9002:1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of Calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993



Certificate of Calibration

Report #: 060407-X0740015-RH RMA #: 95-60966

Model #: HMI41/HMP41

Instrument Type: Humidity Transmitter

Instrument Range: 0 to 100%, RH

Instrument Range: -20 to +60 °C, T

Calibration Date: Jun-04-2007

Serial #: X0650080/X0740015

Calibration Procedure: 11603100

Recommended Calibration Due Date: Jun-04-2008

Customer: HOEFLER CONSULTING GROUP

City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. *Note: the 0% RH point is not ISO17025 Accredited.

Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.07	21.10	0.03	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50 *
11.17	11.30	0.13	2.00	0.92
32.67	32.50	-0.17	2.00	1.01
74.78	74.80	0.02	2.00	1.02

Problem Noted: No "As Found" Data. Intermittent readings from Temp Sensor. Damage to Temp Sensor. RH sensor dirty.

Action Taken: Replaced Temp and RH sensors. The unit was calibrated.

The results of this calibration are related only to the items being calibrated at the time of calibration, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Numbers TN 274176 and TN 274579-07. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 4A			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	9900610	Nov. 27, 2006	Nov. 27, 2008
Fluke 45	7405020	Aug. 4, 2006	Aug. 4, 2007
HMK13B	513796	Mar. 26, 2007	Sep. 26, 2007
HMP233	V4310014	May. 22, 2007	Aug. 22, 2007
HMT333	B0920003	May. 22, 2007	Aug. 22, 2007
HMI41/HMP45	S0720005	Mar. 5, 2007	Jun. 5, 2007

Ambient Conditions	
Temperature:	22.00 °C
Humidity:	49.40 %RH

Approved By

Technical Operator
Matthew Nocivelli



CERTIFICATE OF CALIBRATION AND TESTING

MODEL: 18811 (Comprised of Models 18820A Control Unit & 18831A Motor Assembly)
SERIAL NUMBER: CA02136

R. M. Young Company certifies that the above equipment was inspected and calibrated prior to shipment in accordance with established manufacturing and testing procedures. Standards established by R.M. Young Company for calibrating the measuring and test equipment used in controlling product quality are traceable to the National Institute of Standards and Technology.

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
- (2) 27106D produces 10 pulses per revolution of the anemometer shaft
- (3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☒ No Calibration Adjustments Required ☐ As Found ☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 26 July 2007

Tested By EP

R.M. YOUNG COMPANY 2801 Aero Park Drive, Traverse City Michigan 49686-8171 USA
TEL: (231) 946-3980 FAX: (231) 946-4772 Email: met sales@youngusa.com



R.M. Young Company
2801 Aero Park Drive
Traverse City, Michigan 49686 USA

Certificate of Calibration and Testing

Test Unit:**Model:** 18801**Serial Number:**

CA01674

Description: Anemometer Drive - 10 to 10,000 RPM

- Comprised of Models 18820 Control Unit & 18830 Motor Assembly

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured at the optical encoder output
(2) Frequency output produces 32 pulses per revolution of the motor shaft
(3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☒ No Calibration Adjustments Required

☐ As Found

☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 22 November 2006

Tested By

Houston Precision, Inc.

Calibration Report

8729 Gulf Freeway
Houston, TX 77017-6504

Company: Hoefler Consulting Group
Address: 3401 Minnesota Drive
Suite 300
Anchorage, AK 99503
Contact: Chris Lindsey
Dept:

Doc #: 36861
Date: 10/25/2006
PO#: 1208-003-161
Page: 1

Gage: Torque Watch m#366-3
Mfg: Water's
Location:

Control: 4864
Model: Torque Watch m#366-3
Serial #: 4864

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Caltech Calibration
Original Certificate (attached) # 4074

Reference HPI S/O # 14307

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

Last / Next Cal Dates: -->

Gage Status: PASS

Next Calibration Due: 10/25/2007

Certified By: Denise V. Mills Signature: Denise V. Mills

This certificate is not valid unless all 1 page(s) are present.

*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.

*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994 and Houston Precision's Quality manual.

*The measurement of uncertainty has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.

*If additional information regarding this calibration is required, please contact this laboratory.

*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.

*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.

HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

*This Report shall not be reproduced except in full, or with the expressed written permission of Houston Precision, Inc.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4074
Instrument Make: Water TQ Watch
Model: 366-3
S/N: 4864
ID: 4864

Date: 10-25-06
Temp: 74 Deg f
Humidity: 43%
Rec. In Tol.
Due Date: 10-25-07

This report may not be reproduced, except in full without written permission from Cal-Tec Calibration.

Certification by:  

Comments:

Standards Used	Model	Certification Number	Due Date
Troemner Weights	1156	822/270636-04	3-01-08
In. Oz. Range Red	As Found	After Adjust	Final Reading
.003	.003	none	.003
.009	.008	none	.008
.015	.014	none	.014
.021	.022	none	.022
.027	.028	none	.028
.03	.02	none	.02
Black			
.03	.03	none	.03
.024	.024	none	.024
.018	.017	none	.017
.012	.011	none	.011
.006	.005	none	.005
.003	.002	none	.002

Cal-Tech Calibration, Inc.

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

Houston Precision, Inc.

Calibration Report

8729 Gulf Freeway
Houston, TX 77017-6504

Company:	Hoeffler Consulting Group	Doc #:	37827
Address:	3401 Minnesota Drive, Suite 300 Anchorage, AK 99503	Date:	1/10/2007
Contact:	Dominic Shallies	PO#:	1208-004-403
Dept:		Page:	1
Gage:	Torque Watch	Control:	5042
Mfg:	HONEYWELL	Model:	366
Location:	Calibration Lab	Serial #:	5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Cal-Tech Calibration, Inc.
Original Certificate (attached) #4327

Reference HPI S/O #14549

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

: VENDOR MASTER

Last / Next Cal Dates: -->

Gage Status: PASS

Next Calibration Due: 1/10/2008

Certified By: Denise V. Mills Signature: Denise V. Mills

This certificate is not valid unless all 1 page(s) are present.

*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.

*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NC SL Z540-1-1994 and Houston Precision's Quality manual.

*The measurement of uncertainty has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.

*If additional information regarding this calibration is required, please contact this laboratory.

*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.

*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.

HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

*This Report shall not be reproduced except in full, or with the expressed written permission of Houston Precision, Inc.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NC SL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision

Certificate Number: 4327

Instrument Make: Honeywell Torque Watch

Model: 366

S/N: none

ID: 5042

Date: 1-10-07

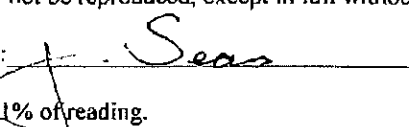
Temp: 72 Deg f

Humidity: 39%

Rec. In Tol.

Due Date: 1-10-08

This report may not be reproduced, except in full without written permission from Cal-Tech Calibration.

Certification by: 

Accuracy: $\pm 1\%$ of reading.

Comments:

Standards Used	Model	Certification Number	Due Date
----------------	-------	----------------------	----------

Acculab	300g	822/270236-04	12-01-07
---------	------	---------------	----------

Reading In/oz	As Found	After Adjust	Final Reading
0.10	0.1	none	0.1
0.20	0.19	none	0.19
0.40	0.40	none	0.40
0.60	0.60	none	0.60

Cal-Tech Calibration, Inc.

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY

Certificate Of Calibration

Equipment Owner:

Name: DOMINIC SHALLIES

Address: 3401 MINNESOTA DR. STE # 300

City, State, Zip: ANCHORAGE, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 2ND Day of NOVEMBER 20 06

DESCRIPTION: POCKET TRANSIT

PURCHASE ORDER: RA 7277

ORDER NUMBER: 23732

LOT NUMBER: 19802

MODEL NUMBER: 5008

SERIAL NUMBER: 5080799319

CALIBRATION DATE: 11-2-06

RECALIBRATION DUE DATE: 11-2-07

Signed: Linda Kenyon
QUALITY CONTROL MANAGER

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 072607. 01 C

Transfer standard model: Pretel AltiPlus A2

Serial number: 27806

submitted by/owner: Hoefler Consulting Group
3401 Minnesota Drive
Suite 300
Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:

Model number: 355-AI0900

Serial number: 913930-M1

Certified accuracy of ± 0.007 "Hg

NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 07/26/07

Lab temperature

73.0

°F

Lab pressure

664.9

mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*
24.00	24.11	0.11	-0.11
26.18	26.28	0.10	-0.10
28.00	28.10	0.10	-0.10
30.00	30.09	0.09	-0.09

Note:

If no sign is given on the correction, the true pressure
is higher than the indicated pressure. If the sign is negative,
the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES **NO**

Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*

Reviewed: RLS

Date:

7/26/2007

Correction: RLS

Corrected Date:

10/04/07

Roger L. Sanders, PE

Chinook Engineering

a division of Inter-Mountain Laboratories, Inc.

555 Absaraka Street

Sheridan, Wyoming 82801 USA

(307) 672-7790

chinook@imlinc.com

THE EPPLEY LABORATORY, INC.

12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA

Telephone: 401-847-1020

Fax: 401-847-1031

Email: eplab@mail.bbsnet.com

Internet: www.eppleylab.com



Scientific Instruments
for Precision Measurements
Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 $^{\circ}\text{C}$

Temperature Compensation Range: -20 to 40 $^{\circ}\text{C}$

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter⁻² (roughly one-half a solar constant). The adopted calibration temperature is 25 $^{\circ}\text{C}$.

As a result of a series of comparisons, it has been found to have a sensitivity of:

$$9.29 \times 10^{-6} \text{ volts/watts meter}^{-2}$$

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter⁻². This radiometer is linear to within $\pm 0.5\%$ up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrheliometers in terms of the Systems Internationale des Unites (SI units), which participated in the Ninth International Pyrheliometric Comparisons (IPC IX) at Davos, Switzerland in September-October 2000.

Useful conversion facts: 1 cal cm⁻² min⁻¹ = 697.3 watts meter⁻²
1 BTU/ft²-hr⁻¹ = 3.153 watts meter⁻²

Shipped to:
Hoefler Consulting Group
Anchorage, Alaska

Date of Test: November 30, 2006

In Charge of Test:

S.O. Number: 60951
Date: November 30, 2006

Reviewed by:

Remarks:

R. T. Egan
Thomas J. Kirk

**Pebble 1
PSD Meteorological
Monitoring Station**

February 2008

**Quality Assurance
Performance Audit**

for the

**Pebble Project
Meteorological
Monitoring Program
Iliamna, Alaska**



prepared for

**The Pebble Limited Partnership,
care of Pebble Mines Corporation**

**Pebble 1 PSD Meteorological Monitoring Station
February 2008
Quality Assurance Performance Audit**

Prepared for:

**The Pebble Limited Partnership,
care of Pebble Mines Corporation
Anchorage, Alaska**

Prepared by:

**Hoefer Consulting Group, Inc.
3401 Minnesota Drive, Suite 300
Anchorage, Alaska 99503**

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- A PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP
- B AUDIT EQUIPMENT CALIBRATION CERTIFICATES

1.0 INTRODUCTION

Hoefer Consulting Group, Inc. (HCG) operates meteorological monitoring stations for The Pebble Limited Partnership, care of Pebble Mines Corporation; in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 1 Station (Pebble 1) located near the proposed mine site.

Pebble 1 is located just west of the mine ore body on top of a gentle, windswept knoll at about 1,550 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. A weighing precipitation gauge is located approximately 75 feet west of the tower and an evaporation pan, collocated with a tipping precipitation gauge, is located roughly 125 feet south of the tower. Between the tower and the precipitation gauges is a 6' by 8' insulated building which houses the datalogger and power supply system. Pebble 1 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Solar Radiation (W/m²): LI-COR Li-200SX Solar Radiation Pyranometer
- Precipitation 1 (mm H₂O): Met-One Model 370 Tipping Precipitation Gauge
- Precipitation 2 (mm H₂O): ETI Model Noah II Weighing Precipitation Gauge
- Evaporation (mm H₂O): Nova-Lynx Model 255-100/200 Pan and Gauge.

This report has been prepared for NDM to serve as a quantitative review of the Pebble 1 station. To that end, a Performance Audit was undertaken in order to demonstrate that the equipment installed at the meteorological monitoring station is operating correctly and meets the requirements set forth by the U.S. Environmental

Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

2.0 PERFORMANCE AUDIT

2.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 2-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

Table 2-1 Performance Audit Methods and Acceptable Limits

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	$\leq \pm 5:00$ minutes from AST
Temperature Accuracy	Collocated NIST thermistor	$\leq \pm 0.5$ °C
Temperature Difference	Collocated NIST thermistor	$\leq \pm 0.1$ °C
Relative Humidity	Collocated NIST RH sensor	$\leq \pm 1.5$ °C of dew point
Wind Speed Accuracy	Synchronous rpm motor	$\leq \pm 0.2$ m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	$\leq \pm 5^\circ$ from true azimuth
Wind Direction Accuracy	Linearity tester	$\leq \pm 5^\circ$ per audit point
Wind Direction Linearity	Linearity tester	$\leq 3^\circ$ mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Barometric Pressure	Collocated NIST BP sensor	$\leq \pm 3$ mbar
Solar Radiation	Collocated NIST sensor	$\leq \pm 5\%$ of input+resolution ¹
Precipitation	Calibrated water volume	$\leq \pm 10\%$ of input
Evaporation	Measured water level	$\leq \pm 10\%$ of input

1. This audit limit is modified from PSD standard, as discussed below.

2.1.1 Data Acquisition System

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

2.1.2 Air Temperature and Air Temperature Difference

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snugly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of $\pm 0.5^{\circ}\text{C}$. The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of $\pm 0.1^{\circ}\text{C}$.

2.1.3 Relative Humidity

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and ambient temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of $\pm 1.5^{\circ}\text{C}$ dew point.

2.1.4 Wind Speed

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

2.1.5 Wind Direction

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed $\pm 5^{\circ}$ per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the

compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of known bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of $\pm 5^\circ$ per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument starting torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

2.1.6 Barometric Pressure

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of ± 3 mbar.

2.1.7 Solar Radiation

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is $\pm 5\%$ of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of $\pm 5\%$ of observed + **EPA minimum instrument resolution (10W/m^2)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to 1.0 ± 0.05 .

2.1.8 Precipitation

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run.

The ETI weighing gauge is also audited by adding measured water volumes to the gauge opening using the calibrated bottle from the Nova Lynx Model 260-2595 Rain Gauge Calibrator. The DAS reading is recorded at the beginning of the test and after every $1/2"$ to $1"$ pour thereafter, up to the limit of the gauge. With both gauges, the percent difference between the predicted audit value and the DAS value is compared to the PSD limit of $\pm 10\%$.

2.1.9 Evaporation

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing or adding enough water to bring the initial level to approximately 50 mm or 240 mm, the minimum and maximum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to or removed from the pan to change the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper or lower limit of the gauge. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of $\pm 10\%$ of input and the slope of resultant line has a limit of 1.0 ± 0.1 .

2.2 Performance Audit Results

A performance audit was conducted at the Pebble 1 station on February 5-6, 2008, with Dominic Shallies of HCG assisting. All sensors except the tipping precipitation gauge were challenged with certified audit equipment and yielded errors below the PSD limits. Attempts were made to audit the tipping precipitation gauge, but the ambient temperature was too cold to operate the testing device. Table 2-2 contains summary data from the audit and complete audit reports and audit equipment calibration certificates are contained in Appendix A and Appendix B respectively.

2.3 Performance Audit Recommendations

- None.

Table 2-2 Pebble 1 February 5-6, 2008 Performance Audit Summary

Parameter	Limit	Units	Max Err	Status
Datalogger Time	$\leq \pm 5:00$	Min:Sec	-0:52	Pass
2-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.34	Pass
10-m Temperature Accuracy	$\leq \pm 0.5$	°C	0.34	Pass
Air Temperature Difference	$\leq \pm 0.1$	°C	0.00	Pass
Relative Humidity (dew point)	$\leq \pm 1.5$	°C	0.8	Pass
Climatronics Wind System				
Wind Speed Torque	≤ 0.0049	oz-in	<0.003	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.050	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	-4.1	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	1.0	Pass
Wind Direction Linearity	≤ 3	Degree	0.3	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	2.8	Pass
RM Young Wind System				
Wind Speed Torque	≤ 0.014	oz-in	0.005	Pass
Low Wind Spd. Accuracy (≤ 5 m/s)	$\leq \pm 0.2$	m/s	0.00	Pass
High Wind Spd. Accuracy (> 5 m/s)	$\leq \pm 5$	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	10.0	Pass
Wind Dir. Azim. Align. (as-found)	$\leq \pm 5$	Degree	-4.3	Pass
Wind Direction Accuracy	$\leq \pm 5$	Degree	3.3	Pass
Wind Direction Linearity	≤ 3	Degree	1.9	Pass
Wind Dir. Azim. Align. (as-left)	$\leq \pm 5$	Degree	1.6	Pass
Barometric Pressure	$\leq \pm 3$	Mbar	0.0	Pass
Solar Radiation	$\leq \pm 5 + \text{Res}$	% input	-8.4 ¹	Pass
Tipping Precipitation	$\leq \pm 10$	% input	N/A ²	Pass
Weighing Precipitation	$\leq \pm 10$	% input	8.8	Pass

1. Max % error value of 8.4 within limit of 5% input + resolution, see audit.
2. Too cold to run tipping gauge drip tests.

3.0 REFERENCES

"Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program", Hoefler Consulting Group, Inc.

"Quality Assurance Manual for Ambient Air Quality Monitoring" ADEC, August 1996.

"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)", ADEC, September 2004.

"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist", ADEC, September 2004.

"Meteorological Measurement Methods Validation Criteria", ADEC, November 2007.

"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)", EPA-450/4-87-007, May 1987.

"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring", EPA-40 CFR Part 58, Appendix B, November 2004.

"On-Site Meteorological Program Guidance for Regulatory Modeling Applications", EPA-450/4-87-013, August 1995.

"Meteorological Monitoring Guidance for Regulatory Modeling Applications", EPA-454/R-99-005, February 2000.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development", EPA-454/R-98-004, August 1998.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements", EPA/600/R-94/038d, March 1995.

"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems", EPA/600/R-94/038e, April 1994.

APPENDIX A
PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Feb 5-6, 2008

DAS TIME AUDIT

PSD Limits: DAS time = Alaska Standard Time (AST) +/- 5 minutes.
Conversions: Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.
Comments: DAS CR1000 SN: 4821. Wire panel # 4678.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
15:51:00	15:50:08	-00:52	PASS

TEMPERATURE SENSORS & AT AUDIT

Lower Height: 2.0 Meters Upper Height: 9.7 Meters

2-M Thermistor: Make: Met One Model: 062MP S.N.#: E3361 # 1/2 Range: -50 to 50 °C
10-M Thermistor: Make: Met One Model: 062MP S.N.#: E3361 # 2/2 Range: -50 to 50 °C
Audit Digital Thermometer: Make: Van Waters & Rogers Model: 61220/601 S.N.#: 51091749 Range: -40 to 150 °C
Audit Probe: Make: Van Waters & Rogers Model: 61220/604 S.N.#: 240301145 Range: -40 to 150 °C

Wiring Check	
2m=2m	✓
10m=10m	✓

Time:

Begin: 1550

End: 1630

THERMISTOR COLLOCATED STANDARD TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Hot	35 to 45	41.56	41.72	0.16	Pass	41.72	0.16	Pass	0.00	Pass
Warm	15 to 25	21.99	22.00	0.01	Pass	22.00	0.01	Pass	0.00	Pass
Ice Bath	0	0.00	0.09	0.09	Pass	0.09	0.09	Pass	0.00	Pass
Cold	-15 to -25	-21.41	-21.14	0.27	Pass	-21.14	0.27	Pass	0.00	Pass
Very Cold	-35 to -45	-36.56	-36.22	0.34	Pass	-36.22	0.34	Pass	0.00	Pass
Max Abs. Error				0.34	PASS			0.34	PASS	PASS

PSD Limits: Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).

Comments: None.

RELATIVE HUMIDITY SENSOR AUDIT

Height: 2.0 Meters

RH Sensor: Make: Vaisala Model: HMP45C-L S.N.#: B4850667 Range: 0.8 to 100 % RH
Audit Equipment: Make: Vaisala Model: HMI 41 S.N.#: X0650080 Range: 0 to 100 % RH
Audit Equipment: Probe# HMI41 X07450015

RH COLLOCATED STANDARD TEST									
Date	Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?
02/06/08	1345	51.3	-24.6	-31.1	60.2	-25.3	-30.3	0.8	Pass
02/06/08	1350	50.5	-24.7	-31.3	58.8	-25.6	-30.9	0.4	Pass
Max Abs. Error								0.8	PASS

PSD Limits: Max Absolute Error > 1.5°C Dew Point.

Conversions: Td=DP(°C), Ta=AT(°C), RH=Fraction: $Td = b \cdot \frac{\ln(RH)}{a - T_a}$, where $a = 17.27$, $b = 237.7$ °C.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Feb 5-6, 2008

• HORIZONTAL WIND SENSOR AUDIT - CLIMATRONICS

Height: 11.2 Meters

Wind Spd Sensor:	Make:	Climatronics	Model:	100075	S.N.#:	3977	Cup #:	2284	Range:	0-60	m/s
Wind Dir Sensor:	Make:	Climatronics	Model:	100076	S.N.#:	4661	Vane #:	1440	Range:	0-360	Deg
Spd Audit Eq:	Low Spd:	RM Young	Model:	18811	S.N.#:	CA02136	Torque:	Watters Mdl 366-3	S.N.#:	4864	
Spd Audit Eq:	High Spd:	RM Young	Model:	18801	S.N.#:	CA01674					
Dir Audit Eq:	Linearity:	Climatronics	Model:	101984	S.N.#:	145	Torque:	Honeywell Mdl 366-0	S.N.#:	5042	
Dir Audit Eq:	Compass:	Brunton	Model:	11-F5008	S.N.#:	5080799319	Magnetic Declin:	17.2	E of N		

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.72	N/A	0.0	Pass
1900	44.87	44.86	N/A	0.0	Pass
Max Abs. Error:			0.00	0.0	PASS

Time: Begin: 1350 End: 1352

Conversion: Heavy Duty AI Cups: m/s = rpm÷42.55+0.22.
Cups rotate clockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST					
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Input Description					
Compass		93.5	91.6	-1.9	Pass
Spire 2488		216.5	212.4	-4.1	Pass
Koktuk Mtn		292.1	289.2	-2.9	Pass
Compass		14.5	14.0	-0.5	Pass
Compass		164.5	162.7	-1.8	Pass

Time: Begin: 1315 End: 1340

Max Abs. Error: 4.1
Mean Abs. Error: 2.2
GOOD

CROSSARM-VANE ACCUR. & LIN. TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0	179.5	-0.5	Pass
West	270.0	268.3	-1.7	Pass
North	360.0	0.2	0.2	Pass
East	90.0	89.2	-0.8	Pass
North	360.0	0.2	0.2	Pass
West	270.0	270.0	0.0	Pass
South	180.0	179.3	-0.7	Pass
East	90.0	90.3	0.3	Pass
Max Abs. Error:			1.7	PASS
Mean Abs. Error:			0.5	PASS

Time: Begin: 1357 End: 1400

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	29.6	-0.4	Pass	330.0	331.0	1.0	Pass
60.0	59.4	-0.6	Pass	355.0	355.4	0.4	Pass
90.0	89.8	-0.2	Pass	30.0	30.1	0.1	Pass
120.0	120.0	0.0	Pass	60.0	59.3	-0.7	Pass
150.0	149.9	-0.1	Pass	90.0	89.4	-0.6	Pass
180.0	179.9	-0.1	Pass	120.0	119.9	-0.1	Pass
210.0	209.9	-0.1	Pass	150.0	149.8	-0.2	Pass
240.0	240.2	0.2	Pass	180.0	179.9	-0.1	Pass
270.0	270.7	0.7	Pass	Max Abs. Error:		1.0	PASS
300.0	300.5	0.5	Pass	Mean Abs. Error:		0.3	PASS

Time: Begin: 1407 End: 1410

WIND SPD TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.0049	<0.003	PASS
New	0.0049	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.104	0.050	PASS
New	0.104	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST				
Cups Aligned North?	✓	Input Deg	DAS Deg	Error Deg
Input Description				
Koktuk Mtn		292.1	292.2	0.1
Compass		86.5	87.6	1.1
Compass		161.0	159.6	-1.4
Compass		5.0	7.8	2.8

Time: Begin: 1410 End: 1430

Max Abs. Error: 2.8
Mean Abs. Error: 1.3
GOOD

Spd PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s.

Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: Motor too cold to run at 2000 rpm.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Feb 5-6, 2008

• HORIZONTAL WIND SENSOR AUDIT - RM YOUNG AQ

Height: 10.4 Meters

Wind Sensor: Make: RM Young Model: 05305 AQ S.N.#: 67731 Prop #: 63798 Range: 0-360 Deg
Spd Audit Eq: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864
Spd Audit Eq: High Spd: RM Young Model: 18801 S.N.#: CA01674
Dir Audit Eq: Linearity: RMY Mdl 18112 Bench Stand S.N.#: None Torque: RMY Mdl 18331 Torque Gauge S.N.#: None
Dir Audit Eq: Compass: Brunton Model: 11-F5008 S.N.#: 5080799319 Magnetic Declin: 17.2 E of N

WIND SPD SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
Max Abs. Error			0.00	0.0	PASS

Time: Begin: 1516 End: 1518

Conversion: Model 08254 Prop: m/s = 0.00512*rpm.
Prop rotates counterclockwise.

WIND DIR IN-SITU AZIMUTH ALIGNMENT TEST				
Box Aligned South?	✓	Input Deg	DAS Deg	Error Deg
Input Description				Pass/Fail?
Compass		93.5	93.4	-0.1 Pass
Spire 2488		216.5	212.2	-4.3 Pass
Koktuk Mtn		292.1	290.1	-2.0 Pass
Compass		14.5	14.2	-0.3 Pass
Compass		164.5	163.2	-1.3 Pass

Time: Begin: 1315 End: 1340
Max Abs. Error: 4.3
Mean Abs. Error: 1.6
GOOD

WIND DIR BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	29.4	-0.6	Pass	150.0	149.8	-0.2	Pass	270.0	266.7	-3.3	Pass
60.0	60.1	0.1	Pass	180.0	178.9	-1.1	Pass	300.0	296.7	-3.3	Pass
90.0	88.3	-1.7	Pass	210.0	209.7	-0.3	Pass	330.0	326.7	-3.3	Pass
120.0	117.5	-2.5	Pass	240.0	236.8	-3.2	Pass	355.0	352.0	-3.0	Pass

Time: Begin: 1500 End: 1504
Max Abs. Error: 3.3
Mean Abs. Error: 1.9
PASS

WIND SPD TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	0.005	PASS
New	0.014	N/A	N/A

WIND DIR TORQUE TEST			
Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/Fail?
In-Situ	11.0	10.0	PASS
New	11.0	N/A	N/A

WIND DIR POST-AUDIT AZIMUTH ALIGNMENT TEST				
Box Aligned South?	✓	Input Deg	DAS Deg	Error Deg
Input Description				Pass/Fail?
Koktuk Mtn		292.1	291.2	-0.9 Pass
Compass		86.5	86.7	0.2 Pass
Compass		161.0	162.6	1.6 Pass
Compass		5.0	5.0	0.0 Pass

Time: Begin: 1410 End: 1430
Max Abs. Error: 1.6
Mean Abs. Error: 0.7
GOOD

Spd PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Abs Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Dir PSD Limits: Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Abs Error >5° from True Azimuth (alignment).

Max Abs Error >5° (accuracy). Mean Abs Error >3° (linearity). Azimuth Mean Abs Error calculated for information only.

Comments: None.

Station Site: Pebble 1
Audit Date: Feb 5-6, 2008

Audit Inst Cal Data	
Cal. Date: 07/26/07	
Audit Inst	Offset Amount
24.11	-0.11
26.28	-0.10
28.10	-0.10
30.09	-0.09
Intercept	-0.18
Slope	0.0031

PSD Limits: Max Absolute Error > 3mb (0.3kPa).
Comments: None.

Station Sensor:	Make: <u>Li-Cor</u>	Model: <u>Li-200SX</u>	S.N.#: <u>PY56427</u>	Range: <u>0-3000</u>	W/m ²
Audit Sensor:	Make: <u>Eppley</u>	Model: <u>PSP</u>	S.N.#: <u>34377F3</u>	Range: <u>0-2800</u>	W/m ²

Solar Radiation Audit Data

Y-axis: DAS Value (0 to 1000)
X-axis: Audit Sensor Value (0 to 1000)

Legend:

- Upper Limit
- Lower Limit
- 1 to 1 Correlation
- ▲ Audit Solar Data
- Linear Audit Data Fit

Linear Regression Equation:
 $y = 1.0187x - 2.7756$
 $R^2 = 0.9986$

Begin Date: 02/05/08 **End Date:** 02/06/08

PSD Limits: Max Abs Err <5% of Observed + Resolution(10W/m²). Linear regression slope in range 1.0±5% (0.95 to 1.05) when R² > 0.995.

Note: Instantaneous values are associated with minute timestamps and hourly averages coincide with whole hour timestamps.

Comments: None.

METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty
Auditor: Eric Brudie

Operator: Dominic Shallies
Witness(s): Dominic Shallies

Station Site: Pebble 1
Audit Date: Feb 5-6, 2008

• TIPPING PRECIPITATION GAUGE AUDIT

Height with Snowfall Adapter Off/On: 1.0/1.5 Meters

Precipitation Gauge: Make: Met-One Model: 370 - 0.2mm S.N.#: D5874 Range: 3 Inches per Hour
Audit Equipment: Make: Nova Lynx Corp. Model: 260-2595 S.N.#: 936 Range: 2 Inches per Hour
Diameter: 8.00 Inches Volume Rate 32.43 ml/mm Int Dat: DAS hourly data and/or adjustments.

TIPPING PRECIPITATION GAUGE VOLUME TEST											
Date:	Start Time	Input Vol ml	Input mm	Begin mm	Int Dat mm	End mm	End Time	Final mm	Error % Input	Pass/Fail?	Notes
02/06/08	1405	650	20.0	0.0		16.8	1410	16.8	-16.0%	Fail	Very cold.
02/06/08	1425	650	20.0	18.4		36.0	1500	17.6	-12.0%	Fail	Very cold.
Max Abs. Error									16.0%	FAIL	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: Too cold for drip tests; disregard.

• WEIGHING PRECIPITATION GAUGE AUDIT

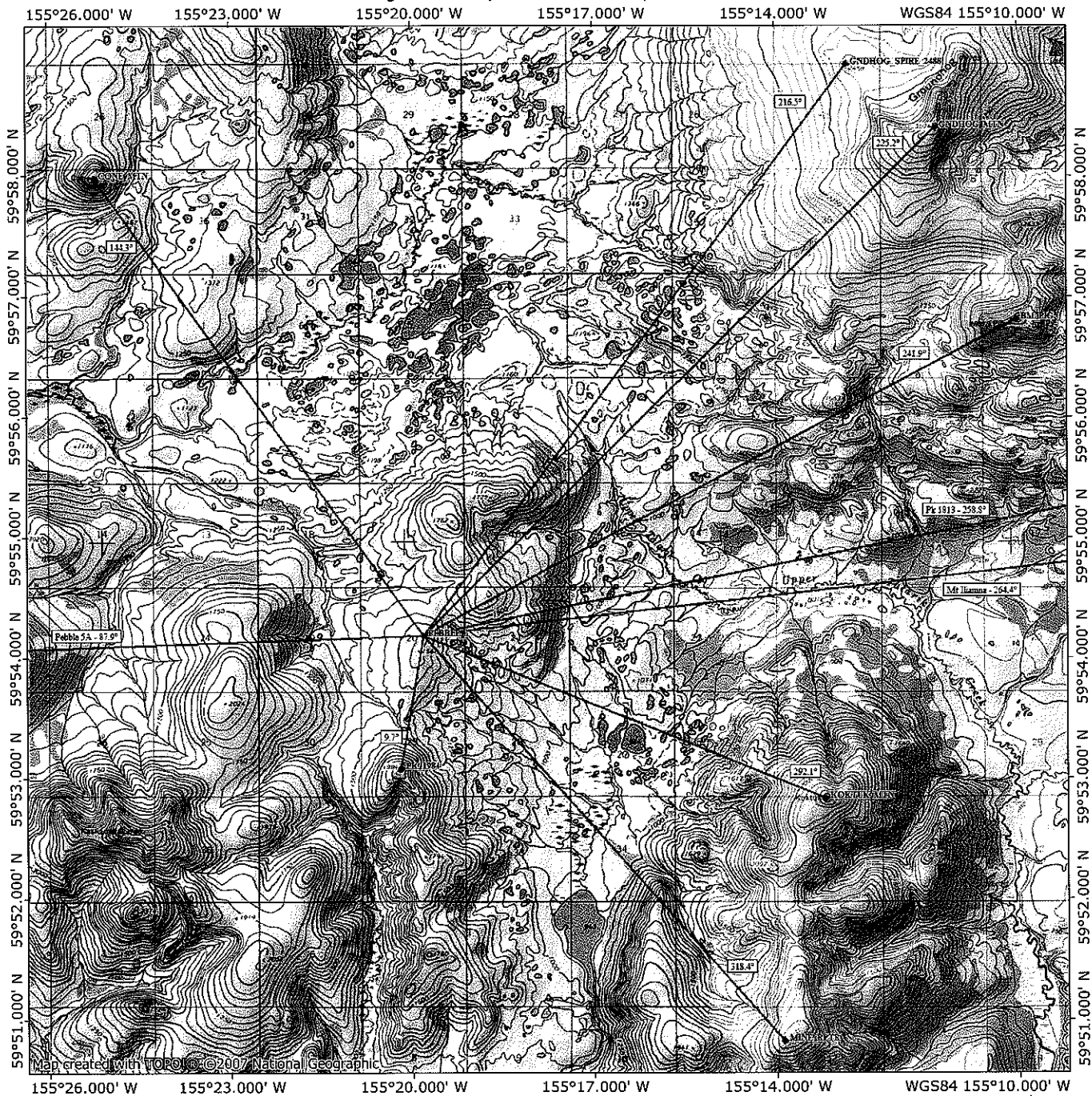
Height: 2.5 Meters

Precipitation Gauge: Make: ETI Model: 8205-00710 Noah II S.N.#: 389 Range: 6 Inches per Hour
Audit Equipment: Make: Nova Lynx Corp. Model: 260-2595 S.N.#: 936 Range: 2 Inches per Hour
Diameter: 12.00 Inches Volume Rate 72.97 ml/mm

WEIGHING PRECIPITATION GAUGE VOLUME TEST									
Reading Time	Approx in	Input Vol ml	Input mm	Begin mm	End mm	Delta mm	Error % Input	Pass/Fail?	Notes
1135	5.00	1600	21.9	18.03	41.15	23.12	5.4%	Pass	
1159		1600	21.9	41.15	64.01	22.86	4.2%	Pass	
1218		1600	21.9	0.00	22.61	22.61	3.1%	Pass	
1235	7.50	1600	21.9	22.61	45.72	23.11	5.4%	Pass	
1309		1600	21.9	45.72	69.35	23.63	7.8%	Pass	
1340		1600	21.9	2.29	26.16	23.87	8.8%	Pass	
1407		1600	21.9	26.16	49.79	23.63	7.8%	Pass	
Max Abs. Error							8.8%	PASS	

PSD Limits: Max Absolute Error > 10 % of Input.
Comments: None.

Pebble 1 TOPO Alignment Map - 59°54.179' N, 155°19.806' W WGS84



TN MN
17½°
10/20/07

APPENDIX B
AUDIT EQUIPMENT CALIBRATION CERTIFICATES



Alaska Calibration, Inc.

Block
Unit

Troubleshooting, Repair and Calibration of
Test & Measurement Equipment

CERTIFICATE OF CALIBRATION

WORK ORDER NO. 9665

TRACEABILITY CERTIFICATE 07041701

ISSUED TO: Hoefler Consulting Group, Inc

INSTRUMENT: 61220-601, Digital Thermometer & 61220-604 Temperature Probe, Fisher Scientific, S/N's 51091749 & 240301145

DATE DONE: April 17, 2007

DATE DUE: April 16, 2008

CERTIFIED BY METROLOGIST: *A.T. Grabowski*
A.T. Grabowski

TEMPERATURE: 69°F HUMIDITY: 43% RH

INCOMING STATUS: This instrument was in (XX) was out of () tolerance when received.

CALIBRATION APPARATUS USED

MODEL	NOMENCLATURE	MFR	SERIAL NO.	DUE DATE
MK3900	Temperature Chamber	Delta Design	89308	NCR
32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Made as Needed	Natural Phys. Const.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	A135	11/13/07
DP41-RTD	Digital Thermometer	Omega Engineering	4381337	11/13/07

CHARTED TEMPERATURE READINGS

Laboratory Probe	Test Instrument Thermometer	System Uncertainty
-50.013°C	- 50.025°C	0.009°C
-25.038°C	- 25.052°C	0.009°C
0.007°C	0.011°C	0.009°C
+ 25.033°C	+25.047°C	0.009°C
+50.004°C	+50.012°C	0.009°C

RANGE/LIMITATIONS: Calibrated over entire range.

PROCEDURE & ACCURACY STATEMENT: T.O. 33K5-4-42-1. Accuracy: See Chart Above.

NIST TRACEABLE REPORT NUMBERS

MODEL	NOMENCLATURE	MFR	DUE DATE	REPORT NO.
RFJA0TL150CA060	Temperature Probe	Watlow/Gordon	11/13/07	G209372
-32°F/ 0°C	Ice Bath	Alaska Calibration, Inc	Natural Phys. Const.	Made as Needed

COMPLIANCE

Alaska Calibration Inc.'s calibration practices and procedures comply with the requirements of ANSI/ISO/ Z540-1 and ANSI/ISO/IEC 17025: 2000 and relevant requirements of ISO 9002:1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of Calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993



Certificate of Calibration

Report #: 060407-X0740015-RH RMA #: 95-60966

Model #: HMI41/HMP41

Instrument Type: Humidity Transmitter

Instrument Range: 0 to 100%, RH

Instrument Range: -20 to +60 °C, T

Customer: HOEFLER CONSULTING GROUP

City, State: ANCHORAGE, AK

Calibration Date: Jun-04-2007

Serial #: X0650080/X0740015

Calibration Procedure: 11603100

Recommended Calibration Due Date: Jun-04-2008

This unit was calibrated by adjusting its reading at 0%* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH and 33%RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. *Note: the 0% RH point is not ISO17025 Accredited.

Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.07	21.10	0.03	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
0.03	0.10	0.07	2.00	0.50 *
11.17	11.30	0.13	2.00	0.92
32.67	32.50	-0.17	2.00	1.01
74.78	74.80	0.02	2.00	1.02

Problem Noted: No "As Found" Data. Intermittent readings from Temp Sensor. Damage to Temp Sensor. RH sensor dirty.

Action Taken: Replaced Temp and RH sensors. The unit was calibrated.

The results of this calibration are related only to the items being calibrated at the time of calibration, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Numbers TN 274176 and TN 274579-07. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 4A			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	9900610	Nov. 27, 2006	Nov. 27, 2008
Fluke 45	7405020	Aug. 4, 2006	Aug. 4, 2007
HMK13B	513796	Mar. 26, 2007	Sep. 26, 2007
HMP233	V4310014	May. 22, 2007	Aug. 22, 2007
HMT333	B0920003	May. 22, 2007	Aug. 22, 2007
HMI41/HMP45	S0720005	Mar. 5, 2007	Jun. 5, 2007

Ambient Conditions	
Temperature:	22.00 °C
Humidity:	49.40 %RH

Approved By

Technical Operator
Matthew Nocivelli



CERTIFICATE OF CALIBRATION AND TESTING

MODEL: 18811 (Comprised of Models 18820A Control Unit & 18831A Motor Assembly)
SERIAL NUMBER: CA02136

R. M. Young Company certifies that the above equipment was inspected and calibrated prior to shipment in accordance with established manufacturing and testing procedures. Standards established by R.M. Young Company for calibrating the measuring and test equipment used in controlling product quality are traceable to the National Institute of Standards and Technology.

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
- (2) 27106D produces 10 pulses per revolution of the anemometer shaft
- (3) Indicated on the Control Unit LCD display

*Indicates out of tolerance

☒ No Calibration Adjustments Required

☐ As Found

☐ As Left

Traceable frequency meter used in calibration DP4863

Date of inspection 26 July 2007

Tested By

R.M. YOUNG COMPANY 2801 Aero Park Drive, Traverse City Michigan 49686-8171 USA
TEL: (231) 946-3980 FAX: (231) 946-4772 Email: met sales@youngusa.com



CALIBRATION PROCEDURE
18801/18810 ANEMOMETER DRIVE

DWG: CP18801(A)

REV: C101107

PAGE: 2 of 2

BY: TJT

DATE: 10/11/07

CHK: JC

W.C. GAS-12

CERTIFICATE OF CALIBRATION AND TESTING

MODEL: **18801** (Comprised of Models 18820 Control Unit & 18830 Motor Assembly)
SERIAL NUMBER: CA01674

R. M. Young Company certifies that the above equipment was inspected and calibrated prior to shipment in accordance with established manufacturing and testing procedures. Standards established by R.M. Young Company for calibrating the measuring and test equipment used in controlling product quality are traceable to the National Institute of Standards and Technology.

Nominal Motor Rpm	Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6,000	3200	6000	6000
8,100	4320	8100	8100
9,900	5280	9900	9900
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured at the optical encoder output.
(2) Frequency output produces 32 pulses per revolution of motor shaft.
(3) Indicated on the Control Unit LCD display.

* Indicates out of tolerance

☒ No Calibration Adjustments Required

☐ As Found

☐ As Left

Traceable frequency meter used in calibration Model: DP5740 SN: 4863

Date of inspection 28 Nov 2007
Inspection Interval One Year

Tested By EJC

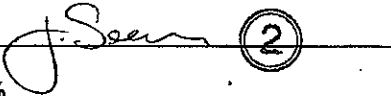
Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Hoefler
Certificate Number: 5944
Instrument Make: Waters Torque Watch
Model: 366-3
S/N: 4864
ID: n/a

Date: 12-05-07
Temp: 73 Deg f
Humidity: 43%
Rec. In Tol.
Due Date: 12-05-08

This report may not be reproduced, except in full without written permission from Cal-Tech Calibration.

Certification by:  (2)

Accuracy: +/- 3%

Comments:

Standards Used	Model	Certification Number	Due Date
Troemner	1156	822/266607/02	3-01-08
In.oz. Range	As Found	Adjustments	Final
.015	.015	none	.015
.021	.021	none	.021
.024	.024	none	.024
.03	.03	none	.03

Cal-Tech Calibration, Inc.

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

Houston Precision, Inc.

Calibration Report

8729 Gulf Freeway
Houston, TX 77017-6504

Company: Hoefler Consulting Group
Address: 3401 Minnesota Drive, Suite 300
Anchorage, AK 99503
Contact: Dominic Shallies
Dept:

Doc #: 37827
Date: 1/10/2007
PO#: 1208-004-403
Page: 1

Gage: Torque Watch
Mfg: HONEYWELL
Location: Calibration Lab

Control: 5042
Model: 366
Serial #: 5042

Parameters:

Parameter:

Text:

Comments:

Calibration Completed by: Cal-Tech Calibration, Inc.
Original Certificate (attached) #4327

Reference HPI S/O #14549

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

: VENDOR MASTER

Last / Next Cal Dates: →

Gage Status: PASS

Next Calibration Due: 1/10/2008

Certified By: Denice V. Mills Signature: 

This certificate is not valid unless all 1 page(s) are present.

*Laboratory Environmental Conditions: Temperature: 68°F +/- 3.6°F and/or 20C +/- 2C, Relative Humidity: between 40% and 60%.

*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCCL Z540-1-1994 and Houston Precision's Quality manual.

*The measurement of uncertainty has not been taken into account when reporting readings "in" or "out of tolerance" on this calibration report.

*If additional information regarding this calibration is required, please contact this laboratory.

*All calibrations have been performed under the supervision and authority of Omar Martinez, Lab Manager.

*Any number of factors may cause the subject of this calibration to drift out of calibration before the recommended interval has expired.

HPI will not be held responsible for the calibration status of an item whose calibration interval exceeds the actual validity of the calibration.

*This Report shall not be reproduced except in full, or with the expressed written permission of Houston Precision, Inc.

End of document.

Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology (N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision
Certificate Number: 4327
Instrument Make: Honeywell Torque Watch
Model: 366
S/N: none
ID: 5042

Date: 1-10-07
Temp: 72 Deg f
Humidity: 39%
Rec. In Tol.
Due Date: 1-10-08

This report may not be reproduced, except in full without written permission from Cal-Tech Calibration.

Certification by: Sean

Accuracy: $\pm 1\%$ of reading.

Comments:

Standards Used	Model	Certification Number	Due Date
----------------	-------	----------------------	----------

Acculab	300g	822/270236-04	12-01-07
---------	------	---------------	----------

Reading In/oz	As Found	After Adjust	Final Reading
0.10	0.1	none	0.1
0.20	0.19	none	0.19
0.40	0.40	none	0.40
0.60	0.60	none	0.60

Cal-Tech Calibration, Inc.

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

THE BRUNTON COMPANY

Certificate Of Calibration

Equipment Owner: HOEFLE CONSULTING GROUP
Name: _____

Address: 341 MINNESOTA DR. STE. 300

City, State, Zip: ANCHORAGE AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lieiz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 18TH Day of JANUARY 2008

DESCRIPTION: POCKET TRANSIT

PURCHASE ORDER: BA 52200

ORDER NUMBER: 1572739

LOT NUMBER: _____

MODEL NUMBER: 5008

SERIAL NUMBER: 5080199319

CALIBRATION DATE: 1-18-08

RECALIBRATION DUE DATE: 1-18-09

Signed: Linda Kenyon
QUALITY CONTROL MANAGER

Certificate of Accuracy

Transfer Standard Type: Barometric Pressure/Altimeter

Certificate No: B 072607. 01 C

Transfer standard model: Pretel AltiPlus A2

Serial number: 27806

submitted by/owner: Hoefler Consulting Group
 3401 Minnesota Drive
 Suite 300
 Anchorage, AK 99503

Was compared to Precision Absolute Reference Barometer:

Model number: 355-AI0900

Serial number: 913930-M1

Certified accuracy of ± 0.007 "Hg

NIST traceable to Ruska Deadweight Tester SN 38342/C-85

Date: 07/26/07

Lab temperature

73.0

°F

Lab pressure

664.9

mm Hg

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*
24.00	24.11	0.11	-0.11
26.18	26.28	0.10	-0.10
28.00	28.10	0.10	-0.10
30.00	30.09	0.09	-0.09

Note:

If no sign is given on the correction, the true pressure
 is higher than the indicated pressure. If the sign is negative,
 the true pressure is lower than the indicated pressure.

Transfer Standard adjustments made? YES **NO**

Post-calibration measurements:

Reference barometer ("Hg)	Transfer Standard ("Hg)	Difference from Reference ("Hg)	Transfer Standard Correction*

Reviewed: RLS

Date:

7/26/2007

Correction: RLS

Corrected Date:

10/04/07

Roger L. Sanders, PE

Chinook Engineering

a division of Inter-Mountain Laboratories, Inc.

555 Absaraka Street

Sheridan, Wyoming 82801 USA

(307) 672-7790

chinook@imlinc.com

THE EPPLEY LABORATORY, INC.

12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA

Telephone: 401-847-1020

Fax: 401-847-1031

Email: info@eppleylab.com

Internet: www.eppleylab.com



Scientific Instruments
for Precision Measurements
Since 1917

STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603 Ω at 23 $^{\circ}\text{C}$

Temperature Compensation Range: -20 $^{\circ}$ to +40 $^{\circ}\text{C}$

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter⁻² (roughly one half a solar constant).

As a result of a series of comparisons, it has been found to have a sensitivity of:

$$9.24 \times 10^{-6} \text{ volts/watts meter}^{-2}$$

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter⁻². This radiometer is linear to within $\pm 0.5\%$ up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrhemometers in terms of the Systems Internationale des Unites (SI units), which participated in the Tenth International Pyrhemometric Comparisons (IPC X) at Davos, Switzerland in September-October 2005.

Eppley recommends a minimum calibration cycle of five (5) years but encourages annual calibrations for highest measurement accuracy. Unless otherwise stated in the remarks section below or on the Sales Order, the results are "AS FOUND / AS LEFT".

Useful conversion facts: 1 cal cm² min⁻¹ = 697.3 watts meter⁻²
1 BTU/ft²-hr⁻¹ = 3.153 watts meter⁻²

Shipped to: Hoeftler Consulting Group Date of Test: March 4, 2008
Anchorage, AK

S.O. Number: 61537
Date: March 6, 2008

In Charge of Test: *R. T. Eppley*

Reviewed by: *Thomas H. Kirk*

Remarks:

Appendix D

Validated Continuous Data Summaries

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	6.2	8.7	9.0	9.0	9.2	7.7	8.2	7.5	8.0	9.0	9.6	9.6	9.4	10.2	10.3	7.8	7.1	6.4	6.4	7.0	6.9	6.3	6.3	6.2	6.3	10.3	6.2	8.0
2	6.1	5.8	5.5	5.2	5.6	5.9	4.7	6.0	7.6	7.9	7.1	7.4	6.8	7.1	7.7	7.3	7.5	6.7	6.8	7.0	6.7	7.4	6.1	5.7	7.9	4.7	6.6	
3	6.2	6.6	7.0	6.3	7.2	9.4	11.8	9.9	9.3	11.2	11.0	9.9	9.6	9.1	8.0	6.8	5.6	6.5	5.9	5.1	5.7	5.0	4.3	4.8	11.8	4.3	7.6	
4	5.6	4.6	3.6	3.0	3.2	3.0	3.0	3.1	3.2	3.0	3.2	3.3	2.6	1.8	1.7	2.3	1.7	1.0	1.0	0.8	1.5	1.3	1.3	1.6	5.6	0.8	2.5	
5	1.4	1.0	2.2	3.6	4.0	3.3	3.7	5.5	5.9	5.0	4.1	3.7	4.3	4.8	4.6	4.4	4.6	3.8	3.4	3.0	2.3	2.8	2.5	2.5	5.9	1.0	3.6	
6	2.3	1.8	2.2	1.8	1.4	1.9	2.2	2.4	2.1	2.2	2.4	2.9	3.4	4.0	5.7	5.9	4.8	5.7	7.2	8.0	6.4	7.3	7.9	7.4	8.0	1.4	4.1	
7	8.8	7.6	8.5	7.7	7.6	9.0	9.8	9.9	10.2	9.6	9.1	8.1	8.5	9.1	8.3	9.1	9.3	8.3	7.7	7.2	6.3	6.4	6.6	6.3	10.2	6.3	8.3	
8	6.9	7.0	6.6	5.7	4.7	5.0	6.0	5.5	5.1	5.1	5.7	5.2	5.2	5.8	5.9	6.6	7.3	7.3	7.7	8.0	7.6	8.1	8.7	6.9	8.7	4.7	6.4	
9	6.1	6.5	5.9	5.6	5.3	4.9	5.1	5.1	5.4	5.0	4.2	3.4	1.7	2.1	3.1	4.1	6.8	6.6	7.9	7.3	9.1	11.2	9.3	10.3	11.2	1.7	5.9	
10	10.7	9.1	8.7	7.7	9.5	10.7	11.4	13.3	9.6	11.7	9.3	13.9	16.2	17.0	17.8	18.7	18.6	18.7	20.1	18.7	17.7	18.4	18.5	17.5	20.1	7.7	14.3	
11	16.5	15.5	14.1	14.3	15.4	15.8	15.9	15.5	16.1	17.5	18.6	18.7	20.5	20.1	19.9	19.7	20.7	21.3	20.4	22.6	22.8	20.5	21.2	21.9	22.8	14.1	18.6	
12	19.4	20.2	21.4	20.9	19.2	18.4	18.9	18.7	20.0	18.6	18.6	18.3	17.6	19.2	19.3	22.1	21.9	21.9	22.1	21.8	19.9	17.8	16.0	15.1	22.1	15.1	19.5	
13	20.3	17.1	15.8	13.4	12.0	10.6	12.0	10.7	9.8	11.5	9.4	5.1	5.6	4.5	2.7	1.8	1.9	1.7	0.4	2.7	2.1	2.6	2.4	3.1	20.3	0.4	7.5	
14	4.2	4.7	7.6	6.3	5.7	4.8	4.6	5.4	5.9	5.8	5.9	6.3	5.5	5.0	5.5	6.2	6.7	6.8	5.8	5.1	5.1	4.4	2.4	2.6	17.6	4.2	12.2	
15	9.2	7.6	6.3	5.7	4.8	4.6	5.4	5.9	5.8	5.9	6.3	6.3	5.5	5.0	5.5	6.2	6.7	6.8	5.8	5.1	5.1	4.4	2.4	2.6	9.2	2.4	5.6	
16	2.4	1.7	0.5	1.4	1.1	1.5	2.8	5.3	7.5	10.0	16.2	22.4	22.3	22.7	23.6	24.5	25.2	26.2	27.3	27.5	25.2	20.6	17.1	14.5	27.5	0.5	14.6	
17	13.3	13.1	10.0	7.9	9.2	8.3	7.5	8.1	11.3	10.3	10.7	12.5	16.6							11.6	15.7	14.6	16.2		16.6	7.5	11.6	
18	13.2	10.9	9.2	6.7	4.9	3.6	3.7	3.7	4.9	3.7	1.0	2.3	2.2	1.5	1.6	1.4	1.7	2.2	2.5	2.9	3.6	3.3	3.0	3.6	13.2	1.0	4.0	
19	3.4	2.3	1.6	1.2	0.8	1.2	0.9	0.6	0.8	1.5	1.2	1.4	1.7	2.8	2.9	2.8	2.7	3.2	4.3	4.8	4.1	3.3	3.6	3.2	4.8	0.6	2.3	
20	3.3	4.7	5.3	5.3	5.9	7.4	7.5	9.3	7.9	7.9	8.4	5.3	2.5	1.3	5.0	6.0	5.6	6.3	4.9	6.3	7.0	7.2	6.3	5.6	9.3	1.3	5.9	
21	6.3	6.0	6.0	5.4	5.1	5.4	3.8	6.0	6.8	8.0	7.6	5.2	6.6	5.0	4.5	4.7	4.0	4.0	3.6	4.6	5.6	3.7	7.1	12.1	12.1	3.6	5.7	
22	10.2	7.7	6.6	4.5	2.5	2.2	3.3	2.5	1.6	2.0	2.5	1.9	1.5	1.0	2.6	3.2	3.6	3.8	3.8	4.2	2.5	3.1	3.4	3.3	10.2	1.0	3.5	
23	2.7	2.4	2.9	2.8	3.5	3.6	3.8	3.2	3.6	3.4	4.0	5.5	4.2	4.4	5.1	6.0	7.1	7.0	7.3	6.2	4.8	4.9	6.0	6.7	7.3	2.4	4.6	
24	6.2	5.6	7.3	6.9	7.3	6.9	6.4	5.3	4.8	6.5	6.4	5.3	3.8	3.8	2.8	3.1	4.0	4.3	4.0	4.0	3.4	2.3	2.8	2.4	7.3	2.3	4.8	
25	1.7	2.3	0.9	4.1	8.0	10.1	7.7	7.5	15.1	17.5	19.7	23.2	27.0	26.3	25.8	26.6	21.0	17.4	20.1	22.0	22.8	24.9	25.9	25.1	27.0	0.9	16.8	
26	25.6	25.9	25.8	24.8	25.7	25.6	27.0	26.6	25.6	25.9	24.6	22.5	19.6	17.2	17.3	15.6	14.9	13.7	12.6	12.4	12.0	13.1	11.6	9.7	27.0	9.7	19.8	
27	10.8	12.8	14.9	15.1	17.8	19.9	20.4	21.8	21.6	21.4	21.8	25.1	29.3	27.3	25.5	23.4	24.0	24.3	24.3	18.0	22.0	23.2	24.8	23.4	29.3	10.8	21.4	
28	21.2	19.0	17.7	17.2	17.7	15.9	14.5	15.0	14.2	13.7	12.5	10.6	9.2	8.2	9.1	9.4	10.5	11.5	10.6	12.9	12.2	13.1	12.6	13.9	21.2	8.2	13.4	
29	15.7	16.3	16.4	16.8	10.5	19.4	22.2	22.7	25.1	30.0	29.6	25.2	22.1	23.8	26.4	22.2	21.4	19.5	21.2	23.3	26.2	25.8	23.9	24.8	30.0	10.5	22.1	
30	19.3	17.9	16.3	17.3	20.3	20.9	21.4	22.6	23.4	26.1	29.8	30.9	34.1	40.0	38.1	36.6	32.0	27.1	25.9	27.6	29.0	23.1	24.4	18.6	40.0	16.3	25.9	
31	16.6	21.0	22.6	19.9	20.9	20.4	20.3	21.4	19.4	19.0	18.0	18.0	15.0	12.6	12.5	10.2	10.4	13.1	15.2	16.3	13.8	14.7	20.3	18.9	22.6	10.2	17.1	
Max.	25.6	25.9	25.8	24.8	25.7	25.6	27.0	26.6	25.6	30.0	29.8	30.9	34.1	40.0	38.1	36.6	32.0	27.1	27.3	27.6	29.0	25.8	25.9	25.1	40.0			
Min.	1.4	1.0	0.5	1.2	0.8	1.2	0.9	0.6	0.8	1.5	1.0	1.4	1.5	1.0	1.6	1.4	1.7	1.0	0.4	0.8	1.5	1.3	1.3	1.6	0.4			
Avg.	9.7	9.5	9.3	8.9	9.1	9.5	9.7	10.0	10.5	11.1	11.1	11.1	11.2	11.1	11.3	11.1	10.9	10.8	10.9	11.1	11.0	10.8	10.7	10.5			10.4	

Total Hours in Month 744

Hours Data Available

737

Data Recovery 99.1%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	13.4	10.3	14.1	13.1	15.6	17.5	17.1	16.3	17.0	16.8	12.7	14.9	17.1	21.4	24.5	25.9	29.9	28.7	25.2	23.9	28.6	30.2	26.2	25.2	30.2	10.3	20.2	
2	22.5	23.2	23.3	21.4	22.4	24.5	24.9	24.3	24.6	25.4	24.3	23.8	23.5	23.5	24.9	26.0	25.0	21.9	20.0	20.5	20.1	19.4	18.7	19.7	26.0	18.7	22.8	
3	19.0	19.5	16.5	16.4	15.4	15.9	13.6	11.6	10.7	9.3	7.9	7.6	4.3	4.4	4.1	4.2	3.7	2.3	1.2	1.2	1.9	3.4	4.4	4.1	19.5	1.2	8.4	
4	3.7	3.3	4.2	3.6	3.2	3.9	4.3	4.7	3.9	4.6	4.7	5.0	4.6	2.5	1.5	1.7	0.9	0.7	1.8	1.5	1.8	2.9	2.8	3.5	5.0	0.7	3.1	
5	4.0	4.8	6.0	5.5	4.2	6.7	7.5	7.3	4.4	4.5	5.5	5.3	4.8	5.9	6.6	8.3	10.5	10.7	10.1	9.8	8.1	10.3	11.1	11.0	11.1	4.0	7.2	
6	13.8	17.1	15.6	13.4	12.5	13.6	13.8	14.0	14.0	13.9	11.4	10.5	9.8	9.6	9.1	8.5			4.6	2.4	1.7	2.0	3.2	3.7	17.1	1.7	9.9	
7	3.3	3.9	5.3	4.7	3.9	1.7	1.1	3.0	2.2	1.6	1.0	0.5	1.7	2.2	1.9	2.1	1.7	1.3	2.1	2.7	1.9	1.4	1.4	1.1	5.3	0.5	2.2	
8	2.5	3.0	2.8	2.5	2.3	3.8	4.4	5.1	6.1	5.6	5.2	4.7	4.7	4.2	4.2	3.9	3.9	4.1	4.2	3.9	4.5	3.6	3.8	3.9	6.1	2.3	4.0	
9	3.7	3.6	4.4	3.6	4.0	4.3	4.4	3.8	3.7	4.3	4.5	3.7	3.9	4.7	6.0	5.3	4.4	2.8	1.5	1.3	1.6	0.9	0.8	1.8	6.0	0.8	3.5	
10	1.2	1.6	1.5	1.4	1.3	1.4	2.9	2.8	3.8	4.4	3.6	4.3	4.5	4.0	4.4	5.0	4.7	2.9	2.9	3.2	3.2	2.5	2.4	1.7	5.0	1.2	3.0	
11	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	4.2	7.2	7.1	5.1	7.2	8.7	11.0	11.9	11.6	15.7	16.4	14.3	14.6	14.5	13.8	16.4	0.2	6.9
12	13.2	13.8	14.1	12.9	12.6	12.6	12.5	11.2	9.2	11.1	11.6	11.4	10.8	12.1	11.9	10.3	9.9	10.4	8.6	7.2	8.0	9.3	8.6	4.7	14.1	4.7	10.7	
13	8.9	9.8	9.9	10.4	8.6	8.8	10.4	10.6	9.1	7.9	5.7	4.1	3.2	3.5	4.8	5.6	10.2	14.7	14.9	14.2	13.9	12.6	11.8	9.6	14.9	3.2	9.3	
14	10.7	10.5	10.2	10.8	9.3	9.3	9.2	9.4	9.6	8.5	7.3	10.8	10.1	8.5	8.4	8.4	7.2	5.8	4.5	5.1	3.4	1.6	1.5	1.0	10.8	1.0	7.5	
15	1.4	1.7	1.1	0.6	1.3	1.6	2.4	2.3	2.0	2.2	2.1	2.7	1.7	2.0	1.9	2.6	2.8	2.9	3.4	3.4	2.6	2.0	1.7	1.3	3.4	0.6	2.1	
16	1.3	1.4	0.9	1.8	1.3	2.4	1.8	1.7	2.0	2.0	2.5	4.0	4.0	4.5	3.4	2.3	1.5	1.0	0.5	0.5	1.1	1.4	1.1	0.5	4.5	0.5	1.9	
17	0.7	1.1	0.9	1.7	2.5	2.6	1.6	1.9	1.1	0.7	0.8	1.0	2.1	3.4	3.6	6.2	5.4	6.4	6.7	5.9	4.5	4.2	3.4	3.0	6.7	0.7	3.0	
18	2.7	2.3	1.9	2.2	1.8	1.1	1.4	1.5	1.4	1.5	1.7	1.3	1.0	0.7	0.7	0.8	0.9	0.7	0.8	1.7	2.4	2.4	2.8	3.1	3.1	0.7	1.6	
19	4.2	4.9	5.0	6.2	7.1	10.1	11.5	11.1	10.3	10.5	9.9	9.6	7.5	8.6	10.0	10.2	11.7	14.2	15.8	15.5	14.5	15.2	16.9	16.8	16.9	4.2	10.7	
20	17.3	18.7	16.1	13.9	13.8	11.7	11.7	14.0	14.8	14.1	13.6	14.7	13.0	13.0	14.0	15.0	16.4	17.7	14.6	12.6	13.6	17.0	16.7	13.4	18.7	11.7	14.6	
21	17.2	16.5	18.8	20.2	20.7	21.9	16.6	12.5	12.3	11.2	10.6	12.7	11.8	12.4	13.5	11.9	9.0	8.4	8.9	8.3	8.0	6.9	7.2	10.8	21.9	6.9	12.8	
22	8.9	7.1	5.1	6.9	6.9	6.9	6.4	7.1	6.9	6.5	5.8	4.8	4.2	4.2	4.8	4.8	4.9	5.8	5.8	5.0	7.5	7.9	5.8	6.2	8.9	4.2	6.1	
23	5.6	6.3	7.3	5.6	6.6	7.6	8.8	8.2	7.6	7.1	8.2	7.5	10.0	11.8	12.8	11.6	8.6	8.9	9.3	6.3	6.3	7.4	9.3	11.3	12.8	5.6	8.3	
24	11.5	10.0	7.7	7.0	8.5	10.9	11.1	10.9	12.4	9.2	11.1	14.0	17.0	14.9	17.4	17.9	17.7	19.2	20.0	20.4	22.1	18.3	16.5	19.9	22.1	7.0	14.4	
25	21.2	17.6	15.5	17.2	16.7	15.9	12.3	9.9	9.5	10.7	8.7	8.5	7.5	6.6	5.9	7.5	6.2	4.2	6.0	6.2	6.0	5.9	6.4	6.7	21.2	4.2	9.9	
26	7.8	7.1	6.5	7.9	5.9	5.9	4.9	4.6	6.1	7.1	5.8	2.7	2.6	3.9	4.4	6.4	7.9	8.5	6.8	6.9	6.7	6.7	7.2	7.6	8.5	2.6	6.2	
27	8.1	8.7	8.7	7.0	6.7	5.9	6.7	6.6	6.5	6.0	5.4	5.9	5.6	5.9	5.9	4.5	4.5	5.4	5.8	5.8	4.3	3.5	2.8	3.8	8.7	2.8	5.8	
28	4.2	4.2	5.1	5.8	5.4	5.3	5.6	5.3	6.7	6.0	6.6	7.8	9.5	8.7	9.6	10.8	11.7	9.3	10.8	5.9	8.4	10.4	7.5	9.6	11.7	4.2	7.5	
Max.	22.5	23.2	23.3	21.4	22.4	24.5	24.9	24.3	24.6	25.4	24.3	23.8	23.5	23.5	24.9	26.0	29.9	28.7	25.2	23.9	28.6	30.2	26.2	25.2	30.2			
Min.	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.7	0.8	0.5	1.0	0.7	0.7	0.8	0.9	0.7	0.5	0.5	1.1	0.9	0.8	0.5	0.2		
Avg.	8.3	8.3	8.2	8.0	7.9	8.4	8.2	7.9	7.8	7.7	7.3	7.5	7.3	7.6	8.2	8.5	8.6	8.5	8.3	7.8	7.9	8.0	7.7	7.8			8.0	

Total Hours in Month 672 Hours Data Available 670 Data Recovery 99.7%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	8.3	8.7	9.7	10.8	8.3	10.3	9.7	9.6	9.1	9.0	9.0	9.2	10.7	10.2	10.8	11.4	11.0	12.6	14.9	13.1	12.4	14.3	13.4	13.2	14.9	8.3	10.8
2	12.9	14.5	13.5	13.9	14.3	14.4	15.3	14.9	14.2	14.8	14.1	13.8	15.2	13.7	13.5	14.7	15.2	14.5	12.0	16.0	17.7	21.0	19.3	19.7	21.0	12.0	15.1
3	16.5	15.5	16.0	14.7	13.0	13.6	13.8	14.9	10.9	13.1	10.5	5.5	7.2	7.1	7.5	6.9	9.5	8.1	7.5	8.1	9.2	7.9	7.4	11.6	16.5	5.5	10.7
4	13.8	14.8	17.3	18.0	17.9	17.1	16.2	15.5	15.1	14.5	16.1	17.2	15.7	20.0	19.4	20.9	20.1	21.0	19.9	15.6	14.5	14.5	15.5	14.7	21.0	13.8	16.9
5	15.0	16.8	16.5	16.0	17.8	16.6	20.3	19.1	19.1	21.5	23.0	21.9	21.6	19.1	21.1	19.7	20.4	19.5	18.8	19.8	21.0	18.6	15.7	16.4	23.0	15.0	19.0
6	15.1	13.7	15.5	17.2	19.8	22.6	21.2	21.8	19.4	21.2	22.3	27.1	26.5	25.5	26.3	26.9	27.5	26.7	26.4	25.8	26.4	26.2	25.8	21.9	27.5	13.7	22.9
7	21.4	22.8	24.5	29.0	28.5	21.7	23.3	26.1	22.2	24.5	22.5	19.5	23.1	27.2	27.8	27.5	23.8	23.4	26.2	24.9	23.9	26.8	27.0	26.0	29.0	19.5	24.7
8	25.8	25.0	21.4	20.0	20.1	19.8	18.7	16.4	15.7	13.7	13.9	13.0	13.1	12.1	10.5	11.6	14.5	16.6	17.5	18.7	21.5	22.8	23.5	17.8	25.8	10.5	17.6
9	14.5	13.0	11.8	13.9	14.7	16.7	15.7	11.0	11.9	13.0	14.0	15.7	12.1	11.9	11.3	11.2	10.1	9.7	9.3	7.6	6.9	6.7	6.4	6.0	16.7	6.0	11.5
10	5.7	5.6	5.6	5.9	7.0	7.8	7.0	8.8	10.0	10.3	11.6	9.2	6.7	5.4	7.2	7.7	7.9	7.9	7.6	7.6	7.5	7.7	7.5	9.3	11.6	5.4	7.7
11	9.9	10.9	12.7	12.6	12.6	17.1	17.4	15.8	13.9	16.5	16.8	17.2	13.1	13.8	16.0	15.8	17.0	19.2	20.9	19.7	20.3	21.1	18.5	16.8	21.1	9.9	16.1
12	17.2	20.8	20.9	22.0	18.4	16.0	16.9	16.4	16.3	19.9	19.6	17.6	19.4	17.8	20.5	20.4	20.2	18.4	19.4	14.8	20.8	18.8	19.2	15.5	22.0	14.8	18.6
13	13.5	13.9	13.3	15.1	15.7	17.8	16.0	15.7	17.1	17.1	15.7	17.7	18.0	17.7	18.7	17.7	18.6	16.8	20.0	19.8	17.4	18.5	18.2	21.4	21.4	13.3	17.1
14	20.7	19.6	20.0	19.4	17.5	19.1	18.0	19.6	16.6	15.7	19.9	21.8	24.0	22.2	21.3	21.3	23.6	24.4	20.1	20.9	18.6	17.6	19.1	20.8	24.4	15.7	20.1
15	18.3	21.0	15.3	15.8	15.5	10.7	8.8	7.0	7.5	7.5	7.3	7.8	8.9	7.8	7.6	8.4	9.4	10.5	12.0	12.6	13.6	14.9	14.3	10.2	21.0	7.0	11.4
16	8.4	8.4	6.0	5.9	6.6	6.0	6.4	6.9	6.9	7.0	9.0	7.6	6.9	6.4	7.6	7.6	8.5	8.3	7.5	6.9	6.6	7.7	7.3	6.8	9.0	5.9	7.2
17	6.8	6.1	5.8	5.7	4.5	4.1	4.1	4.3	3.3	4.5	3.6	4.4	5.0	4.0	3.5	3.1	3.7	3.9	4.6	5.3	4.8	4.2	3.2	2.5	6.8	2.5	4.4
18	3.0	1.5	0.8	1.3	2.1	2.7	2.7	2.5	1.0	0.9	0.8	1.1	1.8	2.6	2.5	2.1	2.5	2.3	3.8	5.5	6.4	7.0	5.7	5.5	7.0	0.8	2.8
19	5.2	4.6	5.6	4.8	4.5	4.3	4.2	4.2	3.8	3.1	3.7	3.3	2.1	2.4	2.1	2.1	2.7	2.3	2.7	3.0	2.6	2.5	2.2	1.5	5.6	1.5	3.3
20	0.9	2.2	2.6	2.9	3.7	3.5	6.4	6.5	9.6	11.7	13.6	14.3	12.5	12.2	12.4	12.2	13.1	11.7	8.2	8.9	7.8	6.9	5.8	4.7	14.3	0.9	8.1
21	4.6	4.6	2.4	3.4	3.9	4.8	6.6	7.5	9.3	10.9	10.8	10.7	11.8	11.7	10.3	7.9	9.0	8.4	8.1	6.5	6.9	5.4	6.3	6.3	11.8	2.4	7.4
22	8.5	10.4	10.1	8.8	7.6	7.6	4.9	4.4	6.2	7.1	7.0	7.3	7.3	6.6	8.9	7.7	8.7	7.5	6.8	5.1	5.8	6.7	8.8	10.4	10.4	4.4	7.5
23	11.2	10.0	9.2	10.1	12.4	14.5	12.6	12.6	11.1	8.4	8.0	9.8	12.7	12.4	12.6	15.1	16.8	15.5	14.5	12.3	11.3	11.3	10.3	11.1	16.8	8.0	11.9
24	10.5	10.0	6.4	4.5	6.5	6.0	6.0	5.3	6.3	5.7	6.1	5.8	5.3	5.3	4.9	4.4	5.0	5.4	5.8	5.6	3.8	3.0	2.7	1.9	10.5	1.9	5.5
25	1.1	1.7	1.4	1.4	1.0	1.6	2.1	2.3	2.3	2.0	2.1	1.9	2.2	1.5	1.4	4.1	3.2	2.4	3.0	3.6	6.0	6.9	8.3	8.4	8.4	1.0	3.0
26	7.9	5.8	8.0	8.6	14.0	15.6	15.3	13.0	10.8	9.9	13.3	16.7	8.6	6.1	6.4	6.6	3.8	5.8	4.9	6.8	8.7	10.4	10.8	9.8	16.7	3.8	9.5
27	8.5	7.3	8.2	8.8	8.5	8.4	9.4	8.4	10.0	12.2	12.8	10.9	13.4	14.4	12.8	9.6	12.9	12.7	11.8	9.9	11.4	13.5	14.9	15.2	15.2	7.3	11.1
28	11.7	11.7	11.9	11.8	10.9	11.3	13.4	12.4	14.6	14.9	14.1	15.8	15.2	11.2	12.4	12.2	9.5	9.5	9.3	8.7	9.6	10.1	10.0	8.7	15.8	8.7	11.7
29	6.9	6.3	6.2	9.3	5.6	5.5	6.9	6.5	7.2	6.0	6.8	7.7	8.4	9.7	11.3	11.2	9.5	10.1	10.8	12.4	12.4	11.0	12.1	11.2	12.4	5.5	8.8
30	11.1	10.9	10.8	8.8	10.3	10.8	10.6	8.0	6.3	4.7	4.7	4.3	4.9	5.0	3.1	2.3	2.1	2.9	2.0	2.0	1.6	1.0	1.0	1.7	11.1	1.0	5.4
31	1.8	1.9	2.3	2.8	2.4	2.1	1.9	2.1	1.6	2.3	2.2	2.0	1.0	0.9	1.3	2.6	4.0	4.7	5.5	4.8	5.1	5.1	5.1	5.4	5.5	0.9	3.0
Max.	25.8	25.0	24.5	29.0	28.5	22.6	23.3	26.1	22.2	24.5	23.0	27.1	26.5	27.2	27.8	27.5	27.5	26.7	26.4	25.8	26.4	26.8	27.0	26.0	29.0		
Min.	0.9	1.5	0.8	1.3	1.0	1.6	1.9	2.1	1.0	0.9	0.8	1.1	1.0	0.9	1.3	2.1	2.1	2.3	2.0	2.0	1.6	1.0	1.0	1.5		0.8	
Avg.	10.9	11.0	10.7	11.1	11.1	11.3	11.3	10.9	10.6	11.1	11.4	11.5	11.4	11.1	11.4	11.4	11.7	11.7	11.7	11.4	11.7	11.9	11.8	11.4			11.3

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	5.0	4.6	4.2	3.9	3.3	3.5	3.9	4.8	4.6	3.5	4.6	3.5	4.2	3.3	3.5	2.3	1.4	0.9	0.9	1.2	1.5	2.0	2.1	2.6	5.0	0.9	3.2			
2	2.9	2.9	2.5	3.5	4.5	5.8	6.3	6.9	8.5	8.5	9.6	12.5	14.2	14.8	14.5	14.4	14.7	15.0	15.0	14.4	15.2	13.9	12.7	11.7	15.2	2.5	10.2			
3	15.1	17.1	15.5	14.5	14.5	14.7	12.3	10.6	10.9	11.8	11.0	13.2	12.6	13.1	12.1	12.5	11.7	12.3	12.3	12.3	12.3	12.6	12.4	10.9	17.1	10.6	12.8			
4	11.2	13.2	11.4	8.2	6.3	5.7	6.1	6.3	6.8	6.6	7.2	11.4	11.3	10.9	11.9	11.0	10.2	9.9	7.8	6.1	4.1	2.5	2.1	2.6	13.2	2.1	8.0			
5	1.4	0.9	1.9	2.1	1.6	5.5	6.6	9.9	10.3	8.8	10.2	15.5	15.3	14.2	13.9	12.3	10.5	13.3	24.4	24.8	22.9	20.5	19.2	19.0	24.8	0.9	11.9			
6	20.3	22.3	20.8	23.2	18.6	16.6	15.3	12.7	12.6	6.4	9.1	10.6	10.1	11.9	11.3	9.0	6.5	8.2	8.2	6.6	6.8	5.9	5.4	4.3	23.2	4.3	11.8			
7	3.6	1.5	2.7	3.0	6.1	15.1	17.0	20.3	20.5	21.1	21.2	20.5	21.3	19.6	17.5	18.1	19.2	16.7	13.1	9.4	8.0	3.2	5.2	6.9	21.3	1.5	12.9			
8	11.7	12.6	13.0	12.2	12.3	12.8	10.5	9.2	8.9	8.8	8.4	8.7	8.5	8.4	9.4	9.7	8.5	6.0	2.7	2.9	4.6	2.2	3.3	6.7	13.0	2.2	8.5			
9	7.7	7.0	4.4	2.9	2.7	1.7	1.9	0.4	0.2	0.2	0.2	0.2	0.2	4.4	10.3	11.6	12.5	11.7	10.6	11.4	12.0	13.4	11.3	12.7	13.4	0.2	6.3			
10	11.5	10.6	9.6	8.8	6.3	3.6	4.9	6.3	7.2	6.3	7.5	9.8	11.3	10.9	9.2	9.5	9.1	8.3	8.3	8.3	7.2	7.8	7.0	5.7	11.5	3.6	8.1			
11	5.8	6.5	6.3	6.1	5.7	6.7	7.5	6.3	4.6	4.5	2.6	3.6	6.2	7.1	8.2	10.1	10.6	11.2	9.6	9.8	6.0	5.9	4.3	5.2	11.2	2.6	6.7			
12	6.6	5.4	2.9	2.8	2.8	1.4	1.7	1.8	1.6	1.8	1.9	1.8	1.6	1.3	2.0	2.7	2.6	2.8	1.7	1.9	1.5	2.0	3.8	4.5	6.6	1.3	2.5			
13	5.1	5.0	5.0	5.0	5.0	4.8	5.2	5.1	4.9	5.0	2.9	3.9	4.2	4.1	3.5	3.6	2.5	1.7	4.6	5.2	3.9	2.5	2.9	2.3	5.2	1.7	4.1			
14	1.9	2.7	2.6	1.7	1.9	1.0	2.3	3.1	2.6	2.9	2.9	3.4	4.1	5.3	7.1	8.0	8.2	7.7	8.0	6.8	8.0	8.3	8.0	8.0	8.3	1.0	4.8			
15	10.8	10.4	12.9	12.6	11.6	8.3	7.0	7.3	6.3	8.7	7.4	9.0	8.6	7.9	6.8	5.4	5.4	4.1	2.9	2.3	1.8	3.0	5.5	5.9	12.9	1.8	7.2			
16	7.1	6.6	5.9	6.0	6.3	5.8	5.6	4.7	4.2	4.5	5.6	4.2	4.5	5.7	8.9	11.9	11.9	9.2	6.7	5.5	4.2	3.0	4.3	2.9	11.9	2.9	6.1			
17	2.5	1.6	2.3	5.7	7.9	8.0	16.3	18.7	23.1	22.6	22.3	24.2	25.2	25.9	26.4	26.8	28.9	29.2	30.1	29.8	30.2	30.3	29.8	28.2	30.3	1.6	20.7			
18	30.1	28.5	27.2	25.3	24.6	24.1	23.7	22.5	22.1	23.5	23.2	22.5	20.6	19.3	19.0	18.2	16.6	9.6	6.5	5.1	3.7	0.5	2.1	3.0	30.1	0.5	17.6			
19	2.7	0.4	0.2	3.2	7.7	11.1	14.9	13.5	14.3	16.4	16.8	16.6	18.9	19.5	18.0	17.9	14.7	14.3	16.3	16.3	16.1	14.6	15.1	14.6	19.5	0.2	13.1			
20	16.4	19.3	17.7	16.9	16.1	13.7	4.4	5.9	7.9	8.2	9.3	15.9	16.9	16.4	19.0	19.4	17.9	17.3	13.9	14.2	13.1	11.8	12.7	9.1	19.4	4.4	13.9			
21	8.3	10.0	8.5	10.8	8.1	7.3	6.6	5.8	3.2	6.6	12.5	15.0	15.9	15.0	17.2	14.3	14.3	15.3	14.7	14.3	15.9	15.0	16.3	16.7	17.2	3.2	12.0			
22	18.2	17.3	19.0	17.1	14.1	16.0	14.1	13.6	15.4	10.9	11.3	13.4	15.6	15.5	14.5	13.1	14.5	13.1	11.1	10.5	10.5	9.7	8.9	4.8	19.0	4.8	13.4			
23	4.2	8.5	11.9	7.4	7.6	14.3	12.1	7.5	10.0	10.4	8.7	6.5	6.3	7.0	3.8	1.7	5.4	3.4	3.7	4.3	2.2	2.5	3.8	5.4	14.3	1.7	6.6			
24	7.4	7.5	6.5	4.3	1.4	1.3	1.7	4.2	4.1	6.6	4.4	5.7	6.8	6.7	3.0	3.0	2.3	1.9	2.8	4.5	4.9	5.3	3.0	5.7	7.5	1.3	4.4			
25	7.0	5.5	5.2	6.5	10.6	12.3	10.1	8.0	7.3	8.6	12.5	14.0	17.2	18.4	17.8	15.3	13.1	12.2	12.3	8.7	4.6	1.4	4.0	3.7	18.4	1.4	9.8			
26	4.6	4.1	6.3	5.2	4.7	5.2	5.4	5.8	5.2	4.9	5.2	5.4	3.6	5.3	6.0	6.8	7.5	10.3	9.3	8.4	7.4	7.4	7.2	5.8	10.3	3.6	6.1			
27	5.9	4.4	3.2	2.1	4.4	5.2	5.4	4.5	5.3	5.3	4.8	5.6	6.0	7.3	7.1	8.1	7.7	7.5	6.9	7.0	6.9	5.5	5.8	9.9	9.9	2.1	5.9			
28	6.7	4.5	6.7	5.1	2.8	2.8	4.2	3.3	2.1	3.0	2.1	2.5	3.6	3.9	6.0	8.1	9.2	10.0	9.0	9.9	8.1	5.6	4.2	4.4	10.0	2.1	5.3			
29	6.4	10.5	9.9	10.0	9.1	10.7	10.3	7.2	7.0	8.6	10.7	15.0	14.2	13.5	13.3	12.8	10.5	10.4	8.8	7.6	5.8	3.6	1.9	2.8	15.0	1.9	9.2			
30	4.1	5.2	5.6	4.2	2.3	1.0	1.6	2.1	2.2	2.7	4.0	5.3	4.5	3.6	4.1	3.4	3.7	2.7	3.8	4.1	4.8	3.5	3.5	2.6	5.6	1.0	3.5			
Max.	30.1	28.5	27.2	25.3	24.6	24.1	23.7	22.5	23.1	23.5	23.2	24.2	25.2	25.9	26.4	26.8	28.9	29.2	30.1	29.8	30.2	30.3	29.8	28.2	30.3					
Min.	1.4	0.4	0.2	1.7	1.4	1.0	1.6	0.4	0.2	0.2	0.2	0.2	0.2	1.3	2.0	1.7	1.4	0.9	0.9	1.2	1.5	0.5	1.9	2.3		0.2				
Avg.	8.4	8.6	8.4	8.0	7.7	8.2	8.2	7.9	8.1	8.3	8.7	10.0	10.4	10.7	10.8	10.7	10.4	9.9	9.5	9.1	8.5	7.5	7.6	7.6			8.9			
Total Hours in Month	720										Hours Data Available										Data Recovery									
	720										720										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	1.7	1.4	1.3	2.3	2.1	1.4	1.8	1.3	2.3	2.7	3.0	1.9	1.7	2.0				1.8	2.8	4.1	2.1	1.9	1.5	2.3	4.1	1.3	2.1
2	2.6	2.4	1.2	1.9	1.1	2.5	3.6	3.2	2.5	2.5	2.0	3.5	3.6	8.3	5.5	6.6	9.6	11.5	11.0	12.3	12.0	10.0	7.2	7.7	12.3	1.1	5.6
3	8.1	4.9	4.8	4.6	3.8	3.4	2.1	1.6	1.0	2.1	4.0	3.9	3.6	2.7	2.5	2.8	3.7	8.6	5.5	3.8	3.3	2.9	1.5	3.0	8.6	1.0	3.7
4	3.7	3.6	2.3	1.9	1.8	2.6	1.1	1.5	1.1	1.5	1.7	1.8	2.7	4.1	5.1	4.7	5.0	5.2	4.9	3.3	2.1	1.4	2.6	2.7	5.2	1.1	2.8
5	1.8	3.2	3.0	3.0	2.2	3.4	4.7	4.3	2.8	2.5	5.4	5.3	5.6	5.7	5.5	6.3	6.8	8.2	7.4	6.9	7.6	7.9	8.1	8.0	8.2	1.8	5.2
6	7.3	5.6	7.8	8.1	8.5	7.3	6.0	5.5	4.8	6.8	6.7	6.6	6.8	7.3	8.0	9.4	9.6	9.5	9.1	9.6	9.4	8.7	7.9	7.8	9.6	4.8	7.7
7	7.7	8.5	8.3	7.9	6.2	4.8	5.0	3.5	3.0	4.5	4.3	4.3	3.4	3.7	4.7	3.9	3.9	4.2	3.6	3.7	4.1	4.2	5.5	5.4	8.5	3.0	4.9
8	3.8	1.1	1.6	1.1	0.7	1.0	1.4	1.6	1.2	1.1	1.7	1.2	1.9	1.7	2.9	5.2	4.9	4.3	4.2	4.2	3.6	3.1	3.9	3.3	5.2	0.7	2.5
9	1.4	2.0	1.7	1.1	1.3	3.4	4.1	4.3	4.2	4.3	3.8	4.1	4.0	4.9	5.3	5.7	5.9	5.5	5.6	5.2	4.1	3.6	2.7	2.6	5.9	1.1	3.8
10	3.0	3.0	2.7	2.3	2.0	2.1	1.5	1.2	1.2	1.5	2.9	2.6	3.2	3.9	4.0	3.9	4.8	5.3	4.8	4.7	5.2	4.8	3.6	4.5	5.3	1.2	3.3
11	3.7	4.5	2.6	2.5	3.4	5.6	5.5	6.1	6.0	9.7	11.0	9.8	8.6	8.7	8.7	9.1	9.1	8.8	8.5	8.5	8.8	8.5	8.1	7.5	11.0	2.5	7.2
12	6.5	5.4	5.3	6.1	5.4	5.1	6.7	6.7	6.4	7.7	9.7	10.0	9.2	10.2	11.2	11.3	11.3	11.1	10.8	10.3	9.2	8.5	6.9	6.2	11.3	5.1	8.2
13	4.1	4.2	5.7	5.9	6.1	6.2	5.5	5.2	4.7	6.3	7.0	8.9	8.6	8.9	9.0	8.7	9.0	8.6	7.1	7.0	5.7	4.3	3.5	4.5	9.0	3.5	6.4
14	4.2	3.1	3.4	4.3	8.0	8.8	5.3	5.1	5.2	6.4	9.0	9.0	8.2	8.6	5.4	7.4	8.1	9.2	10.6	8.1	8.9	7.8	5.8	6.6	10.6	3.1	6.9
15	4.4	4.5	5.1	6.9	6.3	5.3	3.0	2.1	2.8	3.3	3.3	6.7	8.4	9.0	6.6	5.3	4.8	4.8	4.0	1.8	2.6	5.8	5.3	5.0	9.0	1.8	4.9
16	5.1	5.4	3.8	5.7	6.5	6.2	5.7	4.9	4.1	4.1	3.6	4.4	4.2	6.2	3.7	2.2	3.9	6.6	5.2	5.2	7.1	7.8	9.3	9.7	9.7	2.2	5.4
17	9.4	8.5	8.4	8.1	6.8	6.5	6.4	5.7	5.5	5.2	6.5	8.6	8.6	9.2	8.4	10.0	11.1	11.7	11.4	10.9	10.1	7.7	6.5	4.9	11.7	4.9	8.2
18	4.1	5.4	7.3	5.4	5.4	5.4	5.5	5.1	5.6	5.9	5.2	5.0	4.3	3.9	4.0	4.6	3.9	3.2	2.3	2.0	3.5	2.6	2.8	3.1	7.3	2.0	4.4
19	4.2	3.2	3.0	2.8	3.2	4.1	2.7	2.9	4.0	3.1	3.5	4.7	5.6	6.1	5.4	6.4	7.2	6.7	7.4	7.8	6.0	4.1	2.7	2.8	7.8	2.7	4.6
20	2.5	1.9	1.7	1.7	1.2	0.8	1.4	1.1	1.2	1.4	2.8	1.8	1.9	2.2	2.6	3.5	4.5	5.3	5.3	5.1	5.9	4.3	4.9	5.0	5.9	0.8	2.9
21	4.1	1.6	1.9	1.4	1.5	1.1	1.0	1.0	1.5	2.3	1.5	2.4	3.3	4.1	4.5	6.5	7.8	9.0	10.1	11.3	13.2	13.7	11.8	11.8	13.7	1.0	5.3
22	12.2	10.6	11.0	11.0	10.9	8.8	6.7	8.7	11.6	8.4	13.9	11.8	12.9	13.9	13.5	11.4	12.6	12.0	11.9	7.1	4.9	3.8	5.1	4.7	13.9	3.8	10.0
23	4.0	2.1	2.9	3.1	2.6	3.3	1.6	3.1	5.8	5.9	8.9	12.9	14.6	16.8	17.5	16.3	13.3	18.0	17.0	18.0	16.9	14.8	14.8	15.7	18.0	1.6	10.4
24	14.9	13.2	14.6	16.2	16.4	14.5	12.4	13.4	14.1	16.1	15.5	10.5	10.5	8.7	7.7	12.7	11.1	9.8	12.2	11.9	12.7	7.9	6.4	4.9	16.4	4.9	12.0
25	3.0	5.0	3.8	5.2	4.2	4.2	3.0	2.5	3.2	3.3	3.1	3.7	4.2	4.5	4.1	4.0	3.6	4.4	4.7	2.8	1.4	1.2	1.9	3.8	5.2	1.2	3.5
26	4.5	5.1	3.8	5.3	6.8	5.3	5.4	5.4	5.7	7.1	6.4	5.0	6.5	8.7	9.4	10.6	9.8	9.3	10.4	9.6	9.1	10.1	9.1	8.2	10.6	3.8	7.3
27	7.1	6.2	6.2	5.9	6.1	6.8	7.4	6.5	7.2	6.9	7.8	8.3	8.5	8.3	9.1	9.5	9.4	10.1	10.9	11.2	11.4	11.4	9.3	6.6	11.4	5.9	8.3
28	6.8	7.7	6.8	8.0	8.0	6.0	5.5	5.2	4.9	5.9	7.1	8.7	10.2	9.8	12.5	11.7	11.2	10.8	8.0	8.2	8.5	7.0	7.0	5.2	12.5	4.9	7.9
29	5.7	4.2	2.1	2.6	2.8	4.9	5.5	5.5	5.5	6.6	6.1	5.0	3.3	2.3	3.9	2.9	6.0	5.8	4.1	4.7	4.7	4.6	4.1	2.4	6.6	2.1	4.4
30	2.0	0.9	1.1	2.1	2.9	2.7	2.0	2.2	1.9	1.2	1.8	2.7	3.7	7.7	8.6	10.2	9.4	8.8	9.2	7.5	6.1	6.3	5.3	4.4	10.2	0.9	4.6
31	4.9	4.2	2.6	3.7	4.4	4.0	5.4	8.0	14.1	11.5	12.5	11.4	9.2	6.8	3.9	1.9	3.6	4.5	3.6	3.7	4.3	5.5	5.0	5.1	14.1	1.9	6.0
Max.	14.9	13.2	14.6	16.2	16.4	14.5	12.4	13.4	14.1	16.1	15.5	12.9	14.6	16.8	17.5	16.3	13.3	18.0	17.0	18.0	16.9	14.8	14.8	15.7	18.0		
Min.	1.4	0.9	1.1	1.1	0.7	0.8	1.0	1.0	1.0	1.1	1.5	1.2	1.7	1.7	2.5	1.9	3.6	1.8	2.3	1.8	1.4	1.2	1.5	2.3		0.7	
Avg.	5.1	4.6	4.4	4.8	4.8	4.8	4.4	4.3	4.7	5.1	5.8	6.0	6.2	6.7	6.8	7.2	7.5	7.8	7.5	7.1	6.9	6.3	5.8	5.7			5.8

Total Hours in Month 744 Hours Data Available 741 Data Recovery 99.6%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.5	5.9	4.6	3.4	4.8	4.1	4.9	5.1	4.3	5.5	6.5	8.4	9.2	10.7	8.6	12.0	12.5	9.8	12.2	7.9	9.8	8.0	6.9	6.5	12.5	3.4	7.4
2	6.7	4.9	4.1	5.6	6.0	5.8	5.6	5.0	4.8	3.7	4.6	5.2	5.5	5.2	4.5	5.1	4.7	4.2	4.0	3.7	4.4	4.9	4.3	4.1	6.7	3.7	4.9
3	2.7	2.1	1.3	2.0	3.3	3.4	3.0	2.5	2.3	1.7	2.6	3.0	2.3	2.1	3.2	2.3	2.8	3.0	2.5	2.0	2.5	1.8	2.7	4.3	4.3	1.3	2.6
4	5.5	6.3	6.0	6.8	7.8	7.1	8.3	7.4	6.0	5.3	6.1	6.4	6.2	6.3	4.4	2.9	2.5	1.6	5.2	8.9	9.4	10.4	8.9	9.0	10.4	1.6	6.4
5	8.6	8.7	7.6	6.2	5.5	4.8	3.2	5.4	8.4	10.1	11.7	14.4	16.6	18.0	18.7	17.5	17.2	17.2	15.1	14.3	14.7	13.3	12.5	13.5	18.7	3.2	11.8
6	9.5	6.4	7.2	9.5	10.5	10.1	6.7	3.5	2.1	2.2	4.6	5.0	6.3	5.9	5.3	7.3	7.6	6.6	4.9	4.3	5.8	4.1	4.6	3.6	10.5	2.1	6.0
7	2.3	1.8	2.3	2.9	3.1	4.9	5.8	5.5	5.9	6.1	8.0	8.7	9.6	8.1	7.9	17.4	18.2	17.7	18.6	17.3	13.9	13.9	13.2	9.8	18.6	1.8	9.3
8	5.6	7.6	6.1	5.8	4.2	3.4	3.2	2.4	5.3	4.9	3.1	3.1	4.7	4.3	6.7	6.9	7.2	7.3	10.4	11.1	11.3	11.2	9.6	8.2	11.3	2.4	6.4
9	4.8	5.5	5.1	4.6	3.3	2.4	1.9	2.1	3.2	3.6	3.4	4.2	3.9	3.5	4.5	3.7	3.0	2.1	2.4	4.3	5.6	6.0	6.8	7.7	7.7	1.9	4.1
10	7.4	7.5	6.8	7.8	8.4	8.5	8.5	8.9	9.8	9.6	9.6	9.2	7.9	6.5	5.8	5.5	5.6	3.6	5.1	4.0	5.0	3.0	2.9	3.3	9.8	2.9	6.7
11	2.2	2.1	5.2	5.4	5.8	4.5	4.5	4.5	3.5	4.0	5.0	4.7	5.5	7.2	8.7	7.7	9.6	9.6	11.5	9.4	9.2	9.3	7.5	6.1	11.5	2.1	6.4
12	6.3	6.2	5.4	5.4	4.5	3.1	3.4	3.2	3.8	4.6	5.7	5.8	5.5	5.6	5.4	5.0	4.2	4.3	4.3	3.7	3.3	3.1	3.4	2.9	6.3	2.9	4.5
13	2.5	2.0	1.9	2.8	2.2	1.8	2.4	2.4	2.6	2.9	2.5	2.3	2.1	4.7	4.3	2.7	1.9	3.4	3.5	3.7	5.2	5.0	3.6	3.9	5.2	1.8	3.0
14	4.1	4.1	5.1	5.6	6.5	5.9	4.6	5.2	5.0	4.4	4.6	4.5	3.0	3.4	2.7	3.0	2.6	2.1	2.4	3.9	4.5	5.0	7.5	8.1	8.1	2.1	4.5
15	5.9	5.7	6.2	6.4	5.9	6.8	8.7	8.8	9.4	9.2	10.2	9.5	8.9	7.8	7.0	8.3	9.2	8.8	9.4	8.9	9.4	8.7	7.3	6.3	10.2	5.7	8.0
16	7.0	7.5	6.8	7.5	8.1	8.0	8.5	7.2	7.0	6.0	5.7	6.8	7.7	8.5	7.9	8.1	7.8	7.0	6.8	7.9	8.2	7.8	7.0	7.9	8.5	5.7	7.4
17	6.8	5.5	7.1	6.2	5.4	4.6	3.6	2.9	3.2	2.7	2.2	1.7	3.3	2.7	2.1	3.6	4.0	3.8	4.1	3.5	4.1	3.8	3.9	4.3	7.1	1.7	4.0
18	4.4	3.8	3.9	3.8	3.5	4.0	3.1	2.3	2.6	2.7	3.1	2.8	1.5	2.3	2.0	2.0	2.5	3.7	2.0	3.4	3.5	2.4	2.9	2.4	4.4	1.5	2.9
19	3.6	4.9	5.3	5.1	5.2	5.7	5.2	5.2	7.8	8.9	7.7	9.2	9.3	9.4	9.7	10.2	10.7	10.1	9.4	10.2	11.1	10.9	9.2	8.6	11.1	3.6	8.0
20	8.1	9.0	9.1	8.9	9.0	9.9	9.1	8.4	9.4	10.0	11.1	11.4	11.6	10.7	10.4	10.5	10.8	11.7	10.4	10.6	11.4	10.9	12.3	8.1	12.3	8.1	10.1
21	6.5	7.4	7.0	7.7	7.3	6.5	6.3	6.2	7.3	6.6	6.5	7.7	7.3	7.5	8.1	8.3	7.5	7.9	7.2	6.6	8.9	9.8	9.6	9.8	9.8	6.2	7.6
22	6.4	2.3	2.5	1.9	1.3	1.9	3.9	5.1	5.1	4.2	4.7	4.2	3.5	3.9	4.2	4.0	3.6	4.3	4.5	4.8	4.2	3.7	5.0	6.2	6.4	1.3	4.0
23	6.0	6.3	6.8	9.0	10.5	10.9	12.5	13.2	13.0	14.1	14.1	15.6	16.4	16.4	15.6	15.1	15.4	15.3	15.6	14.1	13.3	15.2	13.6	13.4	16.4	6.0	13.0
24	13.4	13.2	11.9	11.0	10.1	9.6	8.0	8.0	7.6	8.0	7.1	9.0	11.8	11.8	12.3	10.9	10.3	10.8	11.4	11.9	11.9	10.7	9.5	8.0	13.4	7.1	10.4
25	6.9	7.6	7.5	8.1	8.1	7.1	7.3	8.1	8.6	9.0	10.2	11.0	10.6	10.8	11.7	13.0	13.4	12.2	12.1	11.6	12.1	10.0	8.5	8.1	13.4	6.9	9.7
26	7.7	6.4	5.7	6.7	7.9	6.1	6.2	6.0	6.2	6.8	6.1	5.0	5.5	3.7	4.0	3.4	3.3	2.5	2.6	3.6	5.5	5.9	5.9	4.8	7.9	2.5	5.3
27	3.7	3.4	3.9	3.1	2.7	2.9	3.0	2.8	2.4	2.7	1.7	2.8	4.0	4.6	5.5	5.9	6.8	6.7	6.3	6.5	6.1	6.3	4.2	2.0	6.8	1.7	4.2
28	1.2	1.9	3.1	3.1	2.0	1.8	2.0	2.1	1.8	2.3	2.4	2.3	3.3	3.2	4.4	4.7	5.0	3.2	2.7	6.2	6.5	6.5	5.6	5.0	6.5	1.2	3.4
29	4.7	4.7	5.0	3.3	2.7	2.4	2.5	3.3	3.2	4.0	3.8	4.3	4.4	4.7	4.9	4.6	4.5	5.7	6.3	6.0	5.6	5.3	4.4	3.4	6.3	2.4	4.3
30	2.1	2.5	1.8	2.8	0.6	1.3	2.5	3.1	3.9	2.8	2.7	3.6	3.5	4.0	4.0	4.7	4.5	4.6	4.9	4.4	4.9	6.9	3.6	3.6	6.9	0.6	3.5
Max.	13.4	13.2	11.9	11.0	10.5	10.9	12.5	13.2	13.0	14.1	14.1	15.6	16.6	18.0	18.7	17.5	18.2	17.7	18.6	17.3	14.7	15.2	13.6	13.5	18.7		
Min.	1.2	1.8	1.3	1.9	0.6	1.3	1.9	2.1	1.8	1.7	1.7	1.7	1.5	2.1	2.0	2.0	1.9	1.6	2.0	2.0	2.5	1.8	2.7	2.0		0.6	
Avg.	5.6	5.4	5.4	5.6	5.5	5.3	5.3	5.2	5.5	5.6	5.9	6.4	6.7	6.8	6.8	7.2	7.3	7.0	7.3	7.3	7.7	7.5	6.9	6.4			6.3

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	3.6	1.9	2.3	2.4	1.9	2.6	2.6	3.2	3.5	3.7	4.1	4.8	4.2	3.8	5.1	6.2	5.3	4.6	4.5	5.1	5.2	4.0	2.5	2.2	6.2	1.9	3.7	
2	1.8	2.8	4.0	2.8	2.7	1.8	1.0	0.9	1.1	4.2	4.8	5.7	5.1	4.9	4.5	5.1	5.4	5.2	6.1	6.0	6.4	6.4	4.7	4.9	6.4	0.9	4.1	
3	4.0	3.1	2.5	1.4	1.6	5.0	4.9	4.5	5.1	4.9	3.4	2.8	3.5	3.7	3.3	2.6	4.1	6.3	6.4	5.8	5.1	4.0	4.1	4.4	6.4	1.4	4.0	
4	5.5	6.7	5.9	5.5	6.1	6.2	5.5	5.8	5.5	5.7	5.9	6.7	7.1	6.5	7.0	8.1	9.1	8.7	7.1	4.7	4.0	4.4	4.8	6.5	9.1	4.0	6.2	
5	6.3	5.4	5.7	6.4	4.8	3.2	2.2	1.3	2.1	3.5	4.0	4.8	4.7	4.0	4.0	4.9	4.5	3.1	1.3	7.0	7.7	7.8	7.5	7.1	7.8	1.3	4.7	
6	5.4	5.7	5.1	5.1	5.2	5.2	4.8	3.8	3.8	3.1	3.8	3.9	2.5	2.5	2.8	2.9	3.7	3.3	2.9	2.8	2.1	1.6	2.4	1.4	5.7	1.4	3.6	
7	1.4	1.9	2.1	2.5	2.4	2.4	2.5	1.8	1.6	2.4	1.8	1.8	2.6	2.0	1.9	3.5	3.2	2.9	2.2	3.3	3.8	1.9	1.6	2.4	3.8	1.4	2.3	
8	2.3	2.2	1.7	1.2	1.0	1.2	1.2	1.8	1.9	3.2	2.9	4.0	4.8	5.3	5.0	5.3	6.3	7.2	7.7	8.8	8.6	8.3	8.9	8.9	8.9	1.0	4.6	
9	9.7	9.8	7.2	7.3	5.3	6.9	6.4	6.6	6.2	5.5	3.6	2.7	3.5	3.3	3.3	2.0	2.2	3.2	3.3	4.1	3.6	3.0	3.0	3.4	9.8	2.0	4.8	
10	3.6	3.2	3.7	2.9	2.4	1.3	1.3	1.5	2.1	3.7	4.2	4.6	3.9	2.6	5.3	4.8	5.2	8.3	8.3	7.8	6.7	6.2	5.9	6.3	8.3	1.3	4.4	
11	6.6	6.0	5.3	5.5	5.3	7.2	6.6	6.7	6.6	6.3	6.3	6.9	7.4	7.5	7.4	6.9	6.7	6.6	6.6	6.5	6.9	6.0	5.5	3.8	7.5	3.8	6.4	
12	4.1	2.7	2.2	2.7	1.8	2.5	2.5	2.6	2.9	2.8	3.7	3.0	3.2	3.6	4.4	4.8	6.6	4.8	3.8	3.9	3.9	3.5	4.5	5.2	6.6	1.8	3.6	
13	4.9	5.0	5.3	5.0	5.3	4.7	3.8	4.0	4.1	3.4	3.7	4.1	5.4	5.2	5.3	5.0	5.2	4.5	4.2	3.6	3.7	3.4	3.4	3.7	5.4	3.4	4.4	
14	2.9	3.7	3.8	3.5	3.9	3.0	2.7	2.6	4.1	3.1	3.7	4.7	5.1	4.9	4.9	6.5	6.9	6.7	6.3	5.7	4.6	4.2	4.6	4.8	6.9	2.6	4.5	
15	3.5	3.3	2.5	2.3	2.5	2.9	1.3	1.1	1.9	1.8	2.2	2.4	2.2	1.9	5.0	6.1	6.6	7.2	6.5	6.0	6.0	6.4	5.6	4.4	7.2	1.1	3.8	
16	3.1	3.6	1.8	3.0	3.8	4.6	4.8	5.4	5.7	5.7	7.0	6.9	6.7	5.9	5.7	5.8	6.6	6.0	6.0	6.7	7.8	8.2	7.7	6.0	8.2	1.8	5.6	
17	5.9	5.6	4.6	4.7	4.7	3.8	3.7	3.8	4.4	4.3	3.2	3.2	2.0	1.7	3.6	4.0	6.4	7.8	9.0	8.5	6.7	6.2	6.7	7.1	9.0	1.7	5.1	
18	6.6	5.8	7.6	6.7	7.8	6.0	5.9	4.1	3.2	3.0	2.9	2.4	1.8	3.5	3.2	4.8	5.2	4.5	4.9	3.5	2.0	1.6	1.1	1.2	7.8	1.1	4.1	
19	2.2	3.2	3.0	2.8	2.7	2.7	2.8	2.5	3.3	3.9	3.7	3.2	3.1	3.4	2.6	2.1	2.4	2.0	3.9	3.3	2.6	1.8	2.7	2.5	3.9	1.8	2.9	
20	1.8	1.7	1.5	0.8	0.4	0.9	0.7	1.1	1.2	1.2	2.0	3.2	1.6	1.3	2.0	3.2	3.5	3.6	4.9	5.6	5.1	6.3	7.1	4.4	7.1	0.4	2.7	
21	4.4	1.7	1.4	1.1	1.9	2.2	2.8	1.4	2.5	3.3	3.0	2.8	1.8	4.2	5.0	6.4	6.9	6.9	6.5	5.6	5.1	5.0	5.3	4.3	6.9	1.1	3.8	
22	3.8	5.5	6.0	5.7	6.2	6.6	6.7	6.4	6.8	6.5	6.3	6.0	6.5	6.4	6.5	6.0	5.4	5.4	5.8	5.4	5.1	3.9	4.0	5.2	6.8	3.8	5.8	
23	4.5	4.7	4.3	2.7	1.6	1.2	1.6	1.5	2.8	3.1	3.9	3.7	4.5	5.0	6.2	7.3	9.1	10.8	11.3	9.8	10.5	9.1	9.4	10.9	11.3	1.2	5.8	
24	10.8	9.6	10.9	12.7	12.9	11.8	11.6	9.4	7.2	6.2	6.7	6.1	5.2	3.7	5.3	5.8	6.6	6.2	3.8	3.0	2.7	2.2	5.9	6.2	12.9	2.2	7.2	
25	6.9	6.8	4.8	3.5	6.6	9.9	3.0	8.3	8.7	9.8	10.2	8.6	5.9	6.6	6.7	5.7	6.2	5.1	4.3	6.2	4.4	3.7	2.6	2.0	10.2	2.0	6.1	
26	3.2	2.2	1.0	1.1	3.0	3.7	3.6	4.8	5.2	5.2	5.2	4.1	3.8	3.8	3.3	2.4	2.7	3.4	4.5	5.9	6.5	4.0	3.1	3.7	6.5	1.0	3.7	
27	1.8	3.2	3.9	3.8	3.6	4.3	3.7	4.7	4.8	5.1	5.7	5.1	5.1	6.3	7.1	6.8	6.0	5.9	8.4	6.5	6.2	4.4	4.6	3.8	8.4	1.8	5.0	
28	3.9	5.0	5.1	5.3	4.8	4.9	4.4	5.1	4.9	4.1	5.1	6.0	4.6	5.7	6.6	6.4	6.9	6.9	7.8	7.7	8.0	8.5	7.1	4.9	8.5	3.9	5.8	
29	3.8	2.9	3.6	3.9	4.7	5.2	6.6	7.1	6.0	6.3	6.0	5.8	6.7	6.9	6.7	6.8	5.9	5.7	5.9	5.1	6.2	6.5	4.7	4.1	7.1	2.9	5.5	
30	4.8	4.1	3.9	4.0	3.2	2.5	2.7	2.5	1.5	1.9	1.2	1.4	2.4	3.3	2.1	3.7	5.2	5.0	5.2	5.0	5.1	4.0	4.5	5.0	5.2	1.2	3.5	
31	3.7	3.2	3.1	3.1	3.5	3.1	3.9	3.9	4.5	5.4	6.1	6.3	6.2	6.5	7.0	6.8	7.4	8.4	6.9	7.4	9.8	11.7	12.5	12.4	12.5	3.1	6.4	
Max.	10.8	9.8	10.9	12.7	12.9	11.8	11.6	9.4	8.7	9.8	10.2	8.6	7.4	7.5	7.4	8.1	9.1	10.8	11.3	9.8	10.5	11.7	12.5	12.4	12.9			
Min.	1.4	1.7	1.0	0.8	0.4	0.9	0.7	0.9	1.1	1.2	1.2	1.4	1.6	1.3	1.9	2.0	2.2	2.0	1.3	2.8	2.0	1.6	1.1	1.2		0.4		
Avg.	4.4	4.3	4.0	3.9	4.0	4.2	3.8	3.9	4.0	4.3	4.4	4.4	4.3	4.4	4.8	5.1	5.6	5.7	5.7	5.7	5.5	5.1	5.1	4.9			4.6	

Total Hours In Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	11.1	10.5	9.7	11.9	10.7	10.7	13.7	13.6	13.6	15.4	16.9	15.7	15.6	12.6	12.5	14.2	13.9	13.6	11.9	13.4	14.7	14.5	14.0	14.4	16.9	9.7	13.3
2	12.8	13.3	13.4	16.4	14.0	14.7	15.8	15.3	15.9	17.1	17.2	16.2	17.6	17.1	15.3	16.9	17.9	15.6	14.7	12.9	12.0	11.7	10.8	8.5	17.9	8.5	14.7
3	9.4	9.3	8.6	8.9	7.0	6.8	7.5	7.6	7.7	7.9	8.3	11.2	10.8	12.0	13.7	14.4	15.4	15.2	14.1	12.5	11.5	11.4	11.0	13.7	15.4	6.8	10.6
4	13.7	15.1	13.4	13.1	15.0	13.6	11.7	11.8	13.1	13.7	14.0	14.1	12.8	11.0	11.3	10.4	11.1	12.9	13.4	12.7	12.2	11.1	10.7	12.4	15.1	10.4	12.7
5	11.2	11.3	12.0	12.4	13.5	9.6	7.4	7.4	6.2	10.1	11.3	10.6	12.2	13.9	12.6	12.6	13.8	12.0	12.6	10.4	10.5	13.1	13.5	14.2	14.2	6.2	11.4
6	13.1	12.6	11.4	10.5	11.1	7.3	8.6	10.8	10.3	12.5	12.3	11.8	12.3	12.7	12.4	11.8	11.7	12.4	10.7	12.3	11.7	9.8	8.7	7.9	13.1	7.3	11.1
7	6.5	6.1	5.7	7.3	10.9	9.4	7.4	8.2	10.4	10.6	11.2	11.3	10.8	11.5	11.8	11.8	10.5	11.3	12.0	10.6	9.8	8.0	7.0	5.7	12.0	5.7	9.4
8	5.4	6.2	4.2	3.8	6.7	4.5	5.7	7.3	7.0	6.9	7.5	8.0	8.2	7.8	7.2	5.4	7.0	6.8	7.1	7.6	6.2	5.5	6.8	7.4	8.2	3.8	6.5
9	7.2	5.9	5.4	5.6	5.8	6.1	5.6	7.1	6.1	6.0	3.3	4.4	3.3	2.0	2.5	1.8	1.6	4.6	4.7	4.3	4.2	3.7	3.2	2.1	7.2	1.6	4.4
10	2.8	4.5	4.4	3.7	3.5	2.4	2.0	1.0	1.0	2.2	3.0	2.4	3.0	2.9	3.6	3.7	4.1	4.5	5.0	4.4	4.5	4.3	4.4	4.3	5.0	1.0	3.4
11	3.8	2.3	2.7	4.0	2.7	1.7	2.2	2.7	2.8	2.8	2.3	1.3	1.8	2.5	2.2	3.2	3.1	4.1	4.3	3.4	2.1	2.0	2.2	2.6	4.3	1.3	2.7
12	3.1	2.3	4.7	3.6	3.5	3.0	3.2	2.1	1.9	1.7	1.9	2.3	4.0	4.6	2.2	3.9	3.6	4.1	5.5	5.2	6.7	3.3	6.9	5.7	6.9	1.7	3.7
13	2.9	0.7	1.6	3.0	3.3	2.5	2.0	1.6	1.7	1.7	2.4	4.0	3.7	3.9	4.0	4.4	4.2	5.8	4.9	4.7	3.9	6.8	8.8	9.8	0.7	3.8	
14	10.0	10.9	11.1	6.8	4.0	3.4	2.0	5.5	6.5	5.6	6.0	4.9	5.1	4.8	4.9	3.7	3.6	4.2	4.6	2.6	2.3	3.8	4.4	4.7	11.1	2.0	5.2
15	6.2	6.4	6.7	8.3	7.9	11.0	9.5	10.1	9.8	10.7	8.5	10.4	9.5	7.9	8.9	7.4	6.5	6.8	6.6	5.9	5.2	6.0	4.2	3.7	11.0	3.7	7.7
16	3.5	3.2	2.1	1.6	1.3	1.6	1.2	1.1	1.9	2.7	2.0	2.2	2.0	2.0	1.5	2.0	1.5	2.2	4.8	4.7	4.9	5.1	4.5	4.3	5.1	1.1	2.7
17	4.3	4.3	4.4	4.3	5.4	6.5	5.6	6.1	4.5	4.7	7.9	8.5	7.7	8.1	7.1	8.5	9.3	11.7	12.5	11.7	12.0	12.1	11.5	12.1	12.5	4.3	7.9
18	12.1	11.9	13.6	14.0	14.3	15.5	16.3	17.3	16.7	17.0	17.9	18.5	18.6	18.7	20.2	21.6	20.7	21.4	20.1	21.3	21.5	20.1	19.5	20.6	21.6	11.9	17.9
19	20.0	19.9	20.4	20.0	17.9	15.2	11.3	10.3	13.6	13.0	11.8	13.3	14.8	14.9	16.4	16.4	17.4	16.8	15.1	14.9	15.7	13.4	12.5	10.4	20.4	10.3	15.2
20	9.7	7.0	6.5	6.4	7.0	8.2	7.5	6.9	9.0	8.2	7.3	6.0	6.2	6.9	8.0	9.2	9.6	9.9	11.0	10.8	10.7	8.2	8.0	7.2	11.0	6.0	8.1
21	7.0	8.0	9.4	9.5	8.6	9.9	10.0	8.8	6.9	7.8	7.8	9.5	9.7	9.9	9.8	8.3	8.6	8.0	7.5	7.8	7.4	6.9	9.1	8.5	10.0	6.9	8.5
22	8.6	8.8	9.3	10.7	11.1	9.3	8.3	8.8	8.5	8.2	8.6	9.0	9.0	9.0	9.0	9.0	9.5	9.3	8.6	8.7	9.0	8.0	7.4	6.1	11.1	6.1	8.8
23	4.5	3.7	2.9	1.6	1.2	2.2	1.2	0.7	1.4	2.4	4.0	4.9	6.0	5.6	6.4	7.0	7.0	7.2	7.3	6.6	6.8	6.6	6.9	6.4	7.3	0.7	4.6
24	7.2	5.9	8.2	8.8	7.5	7.5	7.7	7.3	6.4	6.8	7.6	6.6	6.9	7.1	4.7	4.0	4.6	2.6	4.4	2.8	2.3	2.0	1.8	3.7	8.8	1.8	5.6
25	3.6	2.4	2.1	2.2	3.4	4.7	3.3	2.2	1.9	2.3	2.4	2.6	3.4	3.5	5.2	5.0	6.1	7.7	7.5	6.2	4.8	6.4	3.9	3.9	7.7	1.9	4.0
26	4.6	5.0	4.3	5.0	3.0	3.2	2.7	3.1	3.7	3.1	3.8	5.4	5.9	6.2	5.8	5.7	5.7	6.6	6.8	5.6	5.1	3.6	3.8	4.1	6.8	2.7	4.7
27	6.1	6.4	5.9	5.1	3.4	4.3	3.1	1.9	3.2	3.6	3.2	5.2	6.5	5.8	5.1	3.9	4.0	4.8	3.7	2.5	2.6	2.0	1.4	1.4	6.5	1.4	4.0
28	1.5	3.3	2.5	2.4	1.3	1.4	0.8	1.8	1.8	1.4	1.6	2.3	2.3	3.2	4.5	3.9	3.3	3.5	4.9	6.6	7.3	8.3	5.7	6.1	8.3	0.8	3.4
29	5.5	5.8	6.9	7.5	8.3	7.4	7.8	9.7	9.9	9.9	9.7	9.6	10.7	10.1	10.3	10.2	8.9	9.5	9.4	8.4	6.9	7.3	8.1	7.6	10.7	5.5	8.6
30	5.9	5.8	6.1	6.0	6.6	7.8	7.8	8.3	7.1	6.7	5.8	5.4	4.6	4.6	4.3	5.1	4.2	3.5	3.1	3.6	3.8	4.4	5.1	4.8	8.3	3.1	5.4
31	4.0	4.3	4.1	3.6	3.8	3.8	3.9	3.6	3.2	2.9	3.9	3.9	3.2	2.9	2.8	2.9	3.0	3.0	1.5	1.3	1.1	1.7	2.3	2.0	4.3	1.1	3.0
Max.	20.0	19.9	20.4	20.0	17.9	15.5	16.3	17.3	16.7	17.1	17.9	18.5	18.6	18.7	20.2	21.6	20.7	21.4	20.1	21.3	21.5	20.1	19.5	20.6	21.6		
Min.	1.5	0.7	1.6	1.6	1.2	1.4	0.8	0.7	1.0	1.4	1.6	1.3	1.8	2.0	1.5	1.8	1.5	2.2	1.5	1.3	1.1	1.7	1.4	1.4		0.7	
Avg.	7.3	7.2	7.2	7.3	7.2	6.9	6.5	6.8	6.9	7.3	7.5	7.8	8.0	7.9	7.9	8.0	8.1	8.4	8.4	7.9	7.7	7.5	7.4	7.3			7.5

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	0.8	0.8	1.3	2.0	1.8	2.1	2.0	1.3	2.6	3.7	4.8	4.4	3.9	3.5	3.5	4.0	4.5	4.6	4.5	5.1	5.0	5.4	5.9	4.9	5.9	0.8	3.4	
2	4.9	4.6	4.6	4.4	3.7	3.5	3.6	4.3	3.4	3.1	3.2	4.0	5.2	3.7	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	5.2	0.2	2.5	
3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	14.6	0.2	1.2	
4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.4	0.2	0.3	
5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.8	4.9	5.4	5.2	5.6	4.4	4.5	3.4	4.5	5.5	3.9	1.8	1.9	1.5	5.6	0.2	2.3	
6	1.0	2.9	3.5	1.2	1.4	2.2	2.5	3.5	4.0	5.5	5.0	5.1	5.4	5.5	6.5	5.5	5.5	6.7	5.6	3.9	3.4	3.5	3.1	2.7	6.7	1.0	4.0	
7	3.3	5.2	5.7	5.6	6.1	6.9	6.5	10.8	10.9	14.6	14.6	15.6	18.2	19.7	20.1	21.8	22.4	20.6	21.8	22.0	22.1	21.5	22.7	23.7	23.7	3.3	15.1	
8	21.1	18.9	15.9	14.7	12.0	13.0	14.0	12.7	11.8	12.0	12.5	13.0	11.6	10.0	10.1	9.8	9.2	9.5	6.8	7.9	6.4	5.8	6.7	7.5	21.1	5.8	11.4	
9	7.4	6.3	6.6	6.3	6.2	7.8	7.7	6.7	5.2	5.2	5.3	4.7	4.8	5.1	5.7	5.2	4.9	3.9	2.3	2.3	2.9	4.2	3.5	2.1	7.8	2.1	5.1	
10	1.5	2.3	2.9	1.9	2.2	2.0	1.9	1.5	1.5	2.4	2.7	4.3	5.8	8.0	11.0	12.3	12.2	10.6	9.6	10.9	14.0	16.2	14.9	14.5	16.2	1.5	7.0	
11	14.2	15.1	15.7	16.4	18.0	18.2	18.8	19.4	20.1	19.5	20.8	20.5	22.7	24.2	22.6	23.7	23.9	27.7	27.1	22.4	22.7	23.7	24.9	23.2	27.7	14.2	21.1	
12	21.4	20.8	20.2	18.2	13.4	8.9	5.8	4.6	4.3	4.5	3.8	3.5	5.2	7.0	6.6	7.0	6.9	6.7	8.1	8.6	8.7	8.7	8.2	6.9	21.4	3.5	9.1	
13	5.1	4.3	4.4	4.6	4.6	4.9	5.6	7.2	6.4	5.8	5.1	4.7	5.1	5.6	5.7	4.1	4.1	5.1	4.4	4.3	4.8	4.7	3.7	3.3	7.2	3.3	4.9	
14	2.6	2.0	2.8	2.8	3.4	3.3	2.8	1.6	1.7	0.8	0.8	1.4	1.6	2.1	2.1	2.4	4.9	4.8	6.3	6.3	6.6	6.9	8.7	7.1	8.7	0.8	3.6	
15	7.8	5.0	7.4	8.4	7.8	8.1	7.4	7.1	6.8	5.6	8.7	9.6	10.2	10.3	11.5	10.1	9.5	10.7	9.5	8.6	7.0	4.7	5.5	6.6	11.5	4.7	8.1	
16	8.4	6.7	5.9	6.2	6.7	5.7	5.6	5.7	4.2	3.3	3.2	4.6	5.7	5.7	5.4	6.2	7.0	6.7	5.9	6.9	8.7	7.7	7.7	5.1	8.7	3.2	6.0	
17	2.9	1.8	2.1	1.2	3.9	4.3	6.9	6.3	4.8	4.9	4.5	4.9	5.1	6.3	5.6	4.9	3.9	3.0	3.6	3.2	4.4	5.2	5.1	5.3	6.9	1.2	4.3	
18	6.3	6.6	8.6	7.3	8.7	9.9	12.5	12.2	10.2	14.2	17.1	19.9	22.8	21.3	22.1	21.4	20.4	18.3	17.1	16.2	14.6	11.2	6.5	4.4	22.8	4.4	13.7	
19	5.5	6.5	6.2	6.9	6.6	6.2	5.2	8.7	5.5	5.5	7.8	8.6	10.0	10.5	12.5	13.2	13.3	13.4	12.3	12.6	10.2	11.9	10.9	13.4	5.2	9.1		
20	10.6	12.6	12.7	13.4	12.1	10.2	11.0	10.7	10.7	10.2	9.8	8.0	8.2	7.2	7.0	5.8	5.9	5.4	6.1	6.1	3.6	4.3	3.0	7.3	13.4	3.0	8.4	
21	4.5	3.0	3.1	4.7	6.3	6.9	6.9	7.6	8.8	7.9	8.7	9.3	10.0	9.7	8.9	7.9	7.5	7.6	6.7	5.8	6.3	4.8	4.8	3.6	10.0	3.0	6.7	
22	4.5	3.9	4.8	3.5	3.0	3.2	3.3	2.2	1.1	1.1	2.9	5.7	6.2	7.3	10.0	11.0	12.6	13.2	13.2	13.2	10.1	9.6	12.4	8.2	13.2	1.1	6.9	
23	5.4	4.1	2.3	4.5	3.1	3.5	3.5	2.7	2.4	4.0	4.2	4.3	5.2	7.1	8.4	9.0	8.2	7.0	7.7	8.5	7.7	7.7	7.6	6.0	9.0	2.3	5.6	
24	6.2	6.9	4.4	7.1	8.4	6.8	6.6	6.7	7.1	7.9	8.8	7.5	7.2	6.2	8.3	6.7	6.9	5.8	6.5	5.2	3.6	4.4	5.8	7.3	8.8	3.6	6.6	
25	6.9	7.6	7.9	5.4	6.0	7.6	9.2	8.7	8.4	8.9	7.3	6.3	7.4	6.8	6.7	7.1	6.6	8.0	8.2	7.6	7.6	7.3	7.1	7.8	9.2	5.4	7.4	
26	6.5	6.4	5.4	6.0	5.9	3.4	2.6	1.7	2.0	2.3	3.0	4.5	3.4	2.7	1.9	1.6	1.4	3.1	4.5	5.2	5.0	4.6	5.5	6.7	6.7	1.4	4.0	
27	7.2	7.7	8.2	5.8	3.1	2.6	2.2	1.4	2.1	1.9	2.8	2.5	4.5	4.6	4.7	5.3	6.8	7.8	9.2	12.5	15.8	18.6	19.7	19.1	19.7	1.4	7.3	
28	18.3	18.3	19.8	18.8	16.2	17.4	15.5	13.4	12.1	9.9	8.8	9.4	9.2	8.2	6.1	4.6	3.0	3.5	3.3	2.5	2.2	1.6	2.6	2.8	19.8	1.6	9.5	
29	5.4	6.5	6.9	7.1	6.7	5.4	5.3	3.9	3.4	2.8	1.9	3.2	2.0	4.5	5.1	5.0	5.0	3.4	3.4	3.8	4.4	5.4	5.3	4.9	7.1	1.9	4.6	
30	6.1	5.7	6.6	5.7	6.0	6.4	7.7	7.7	8.3	6.6	7.1	8.4	9.4	7.2	6.4	4.5	4.3	5.0	6.4	6.0	2.9	1.8	4.2	3.0	9.4	1.8	6.0	
Max.	21.4	20.8	20.2	18.8	18.0	18.2	18.8	19.4	20.1	19.5	20.8	20.5	22.8	24.2	22.6	23.7	23.9	27.7	27.1	22.4	22.7	23.7	24.9	23.7	27.7	27.7		
Min.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.8	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Avg.	6.6	6.4	6.6	6.4	6.1	6.0	6.1	6.0	5.9	6.0	6.5	7.0	7.6	7.8	7.8	7.5	7.5	8.0	7.6	7.4	7.3	7.1	7.3	6.9	6.9		6.9	

Total Hours in Month 720

Hours Data Available 712

Data Recovery 98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	4.5	5.1	4.7	3.4	3.7	5.4	4.8	3.8	3.2	1.5	2.6	3.0	2.5	4.8	7.8	9.1	10.3	9.9	12.1	11.0	12.3	10.1	11.2	12.9	12.9	1.5	6.7	
2	12.1	13.4	14.3	15.8	16.0	14.9	14.0	13.2	12.1	11.8	13.7	14.6	14.6	12.4	12.1	12.0	12.3	11.7	12.0	11.5	12.0	10.3	10.3	9.9	16.0	9.9	12.8	
3	10.8	11.4	11.5	11.9	11.0	9.1	9.2	7.8	8.7	9.3	11.0	10.9	10.9	9.5	9.6	10.3	10.3	11.1	6.4	4.4	4.4	1.6	1.3	1.0	1.3	11.9	1.0	8.4
4	1.9	1.2	1.5	2.9	4.3	4.7	7.0	6.6	11.6	12.6	16.1	16.7	18.2	18.0	17.7	16.7	14.9	13.4	12.8	13.7	12.4	13.0	13.7	12.4	18.2	1.2	11.0	
5	11.7	12.0	12.7	13.1	14.4	14.5	12.9	11.2	9.3	9.7	8.3	6.7	2.9	6.7	13.4	14.6	15.4	15.4	17.4	14.1	11.5	8.4	10.6	12.1	17.4	2.9	11.6	
6	11.1	10.0	11.6	12.7	13.2	13.4	13.1	16.0	15.1	15.2	12.5	10.5	12.9	13.3	11.4	11.7	12.0	11.0	10.3	9.0	6.1	7.2	8.3	8.1	16.0	6.1	11.5	
7	7.8	6.3	7.1	5.8	6.5	7.3	7.1	7.6	10.9	12.3	13.2	13.6	14.1	16.0	16.5	15.8	15.5	16.5	17.9	17.0	15.1	16.4	13.1	11.3	17.9	5.8	12.1	
8	11.7	11.1	10.0	13.5	14.8	13.4	10.1	8.8	9.6	12.1	12.9	12.4	13.5	12.6	12.4	12.0	11.9	9.6	7.8	6.6	7.7	8.6	10.8	6.6	14.8	6.6	10.8	
9	7.1	7.7	6.6	4.6	2.3	1.7	1.3	1.5	1.8	1.6	1.1	0.9	1.0	1.2	2.2	2.5	4.1	5.2	5.5	3.2	3.3	4.3	6.1	6.3	7.7	0.9	3.5	
10	6.5	7.1	7.5	6.9	6.0	7.7	8.8	7.7	7.8	7.8	8.3	8.9	7.6	8.3	10.1	8.3	7.8	7.5	6.9	4.9	4.1	3.7	3.1	3.2	10.1	3.1	6.9	
11	2.9	3.5	3.7	3.0	3.3	2.5	2.5	1.5	1.4	2.1	3.0	3.8	4.4	6.5	7.3	8.0	8.9	8.2	8.4	7.2	7.8	8.3	9.7	11.1	11.1	1.4	5.4	
12	10.3	9.7	9.0	6.7	6.2	6.7	5.4	2.5	1.6	1.1	1.1	1.2	1.6	2.5	2.5	2.8	2.8	2.2	2.6	4.3	6.5	4.5	5.0	4.5	10.3	1.1	4.3	
13	5.0	5.1	4.5	4.8	5.0	4.7	5.2	8.3	6.7	7.1	6.3	6.7	7.4	7.3	6.6	6.7	7.7	8.6	9.9	8.0	8.3	8.6	8.6	9.4	9.9	4.5	6.9	
14	8.0	6.7	8.1	9.9	8.3	6.8	6.3	6.5	5.2	4.0	3.5	4.4	4.6	3.6	3.9	3.0	5.2	5.3	4.5	5.3	5.7	5.1	4.2	2.9	9.9	2.9	5.5	
15	1.9	2.3	2.5	2.0	1.4	1.0	0.9	1.7	3.3	1.9	1.6	1.7	1.4	1.8	1.5	1.6	1.4	1.4	1.8	2.9	3.3	2.9	2.7	2.6	3.3	0.9	2.0	
16	3.0	3.4	3.3	2.8	2.9	3.8	5.1	6.0	6.0	5.8	5.2	5.9	6.4	7.8	8.6	9.4	8.9	8.0	8.0	8.9	9.9	10.4	8.8	7.4	10.4	2.8	6.5	
17	6.7	6.8	7.7	7.8	8.4	7.8	6.8	6.6	6.5	6.9	6.7	5.5	5.3	5.8	6.3	6.1	5.4	4.5	5.7	5.2	4.8	4.6	5.0	4.8	8.4	4.5	6.2	
18	3.8	3.4	3.3	3.0	2.7	2.6	2.8	2.6	2.5	2.4	2.3	2.4	2.2	2.4	3.4	4.3	4.8	4.9	5.6	6.3	6.0	6.7	6.7	5.5	6.7	2.2	3.9	
19	5.7	5.6	4.1	4.3	3.9	2.1	2.3	1.7	1.3	1.6	1.8	1.7	1.0	0.5	1.2	1.3	1.5	1.8	1.6	3.0	2.8	3.2	3.2	3.2	5.7	0.5	2.5	
20	2.0	2.3	1.8	2.6	2.2	2.3	2.9	2.6	2.4	2.1	3.0	2.9	4.6	6.2	5.6	6.5	6.6	5.4	7.2	8.0	9.5	10.0	8.4	9.8	10.0	1.8	4.9	
21	9.5	10.0	8.6	9.8	10.1	12.2	15.8	8.5	7.4	5.2	4.1	5.0	5.0	6.6	8.6	6.4	4.6	3.4	1.9	2.1	2.9	3.5	4.1	4.2	15.8	1.9	6.6	
22	4.4	4.6	5.5	5.4	5.6	4.6	4.3	3.8	2.9	1.4	2.1	2.1	1.4	1.9	2.5	3.2	3.5	2.4	1.3	1.7	1.5	2.0	2.1	2.0	5.6	1.3	3.0	
23	2.0	2.1	1.5	1.6	2.1	1.9	1.6	1.8	2.0	2.2	1.8	2.6	2.6	3.7	3.7	3.4	1.9	4.7	6.9	6.2	4.6	2.6	2.8	2.5	6.9	1.5	2.9	
24	2.2	3.0	2.5	2.5	4.1	4.5	3.9	3.4	3.5	5.4	5.3	6.9	5.2	7.2	6.8	4.6	2.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.2	0.2	3.1	
25	0.2	0.2	8.6	15.6	16.3	20.2	23.6	23.0	24.9	27.7	28.7	28.8	28.2	27.5	25.7	25.0	23.9	24.4	23.0	20.9	13.7	7.5	5.7	7.4	28.8	0.2	18.8	
26	4.6	4.8	4.1	4.1	4.2	5.8	4.7	3.4	5.2	5.3	5.2	4.7	5.0	4.9	4.8	4.8	4.3	4.4	4.0	5.2	7.6	9.7	9.8	9.1	9.8	3.4	5.4	
27	7.1	8.7	9.9	10.1	9.0	7.7	5.7	6.8	3.7	2.8	3.6	5.0	2.4	3.1	9.3	9.4	7.7	8.0	7.2	5.7	3.9	2.3	4.0	4.8	10.1	2.3	6.2	
28	3.9	4.9	3.7	2.0	1.8	1.0	1.9	2.4	3.7	4.1	4.0	4.3	4.9	4.1	3.9	4.6	4.7	4.4	6.4	5.8	6.4	8.2	9.9	13.8	13.8	1.0	4.8	
29	14.9	16.8	18.0	19.2	19.2	18.3	20.5	22.8	23.3	25.0	21.6	22.8	24.5	24.4	20.0	21.4	19.7	15.9	13.1	13.1	20.6	20.2	19.6	17.8	25.0	13.1	19.7	
30	7.7	5.1	9.1	9.9	9.5	12.1	8.4	6.1	6.6	6.6	6.0	4.6	3.5	1.8	3.5	1.8	1.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	12.1	0.2	4.4	
31	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4.6	8.4	6.9	4.7	5.1	3.6	5.1	3.3	1.5	5.2	5.0	5.4	8.4	0.2	2.6	

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	6.0	5.0	4.7	5.4	3.9	2.6	4.4	2.8	0.8	0.6	0.2	0.2	0.6	1.3	1.2	1.2	1.8	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	6.0	0.2	1.9
2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
4	0.2	0.2	0.2	7.5	15.6	15.8	15.9	15.7	14.8	15.2	15.0	13.2	13.0	14.1	12.2	10.9	11.1	11.9	10.8	9.4	8.9	9.4	9.5	8.8	15.9	0.2	10.8	
5	9.1	7.8	7.2	7.6	8.1	6.0	3.6	2.5	3.3	3.9	4.5	3.7	2.9	3.4	4.4	3.8	4.0	6.2	6.7	6.0	5.8	6.2	7.6	6.3	9.1	2.5	5.4	
6	8.6	11.4	12.3	11.6	12.5	12.2	12.5	17.2	16.9	17.3	20.7	19.6	20.4	24.8	22.9	16.3	20.3	21.7	19.7	18.1	19.1	18.8	16.2	11.0	24.8	8.6	16.8	
7	8.8	8.7	9.7	12.1	12.0	14.7	15.7	13.9	13.1	14.1	13.8	15.4	14.9	13.8	11.6	9.2	10.5	9.1	9.0	10.2	8.5	9.9	8.4	1.6	15.7	1.6	11.2	
8	0.2	0.2	0.2	0.2	0.2	0.2	0.4	20.8	22.9	22.5	24.6	26.5	23.3	16.9	15.7	16.2	16.7	15.5	13.6	13.1	13.3	11.7	7.9	8.5	26.5	0.2	12.1	
9	10.6	8.2	8.9	8.4	7.9	8.1	8.8	8.7	7.8	7.6	7.5	7.7	7.3	8.8	11.1	10.5	10.3	10.2	7.1	7.2	7.1	3.4	2.1	1.8	11.1	1.8	7.8	
10	2.8	3.9	4.0	4.5	4.6	5.3	4.9	4.7	5.3	4.1	5.9	5.1	6.0	7.1	7.9	7.9	6.1	4.9	3.8	2.9	4.2	3.3	4.7	4.0	7.9	2.8	4.9	
11	3.7	2.8	3.0	2.9	3.8	4.1	3.7	3.8	3.5	2.7	3.1	3.6	4.2	3.7	3.0	3.2	4.5	4.5	3.6	2.5	2.0	1.1	1.4	1.1	4.5	1.1	3.2	
12	1.1	1.2	1.3	0.5	0.6	1.0	1.2	1.2	1.0	1.5	1.5	1.3	1.2	1.5	2.1	3.5	4.0	4.7	5.3	6.0	5.8	4.9	5.9	6.2	6.2	0.5	2.7	
13	7.7	7.4	6.9	6.6	6.1	6.5	7.8	9.2	9.1	8.3	8.6	8.0	6.5	4.3	5.4	3.8	1.3	2.4	3.6	5.9	6.0	5.7	6.8	7.7	9.2	1.3	6.3	
14	8.1	6.9	7.1	7.7	7.2	6.0	6.7	4.5	2.6	2.4	2.0	2.4	2.5	2.6	2.1	1.1	1.9	2.5	3.3	2.5	0.3	0.2	0.2	0.2	8.1	0.2	3.5	
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.1	6.4	7.4	9.9	10.4	10.5	7.7	8.8	10.5	0.2	3.4	
16	11.6	13.4	14.0	14.1	15.3	14.5	15.7	16.1	16.4	17.2	17.1	16.9	16.6	17.2	16.4	14.6	14.1	17.8	16.2	16.7	15.1	14.9	14.9	14.9	17.8	11.6	15.5	
17	12.5	13.6	15.0	14.8	15.7	15.6	14.3	13.0	13.6	14.2	14.3	13.3	14.8	13.7	13.6	14.1	13.8	12.4	9.1	9.1	10.8	11.2	9.7	9.7	15.7	9.1	13.0	
18	8.5	7.6	6.5	5.6	5.2	4.4	4.4	4.2	4.2	4.0	3.3	3.9	3.8	3.5	3.2	2.8	2.5	2.7	2.5	1.6	0.9	0.9	1.4	1.7	8.5	0.9	3.7	
19	1.6	1.7	2.5	1.5	2.2	2.0	2.5	2.6	3.2	3.9	4.2	4.0	6.9	7.7	6.6	5.6	7.1	4.5	3.8	6.2	4.4	2.8	5.1	6.7	7.7	1.5	4.1	
20	8.1	8.2	6.8	6.3	7.5	14.8	19.0	19.5	21.9	24.8	25.5	26.6	26.6	30.4	26.9	23.6	21.1	19.4	10.7	9.6	12.8	9.6	9.6	9.3	30.4	6.3	16.6	
21	11.3	14.3	15.0	11.7	11.9	13.3	15.9	13.4	11.9	13.1	16.6	15.0	14.6	12.5	14.6	15.3	14.5	17.8	20.1	19.9	16.9	16.7	13.4	16.8	20.1	11.3	14.9	
22	15.2	11.0	11.0	12.6	5.8	2.8	4.5	6.1	6.6	10.0	22.3	21.9	21.0	19.4	15.6	15.0	15.1	11.1	19.5	23.3	21.0	15.1	14.7	9.6	23.3	2.8	13.8	
23	9.2	10.3	9.9	8.4	9.5	12.2	11.0	7.5	4.5	4.6	4.5	3.9	4.0	3.1	4.1	2.2	2.0	2.5	1.4	4.6	5.4	6.4	7.4	7.5	12.2	1.4	6.1	
24	4.5	3.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	9.7	13.5	14.5	15.8	20.5	23.7	19.9	20.1	19.3	22.8	23.7	0.2	7.9	
25	20.9	23.3	21.9	20.6	18.7	17.8	13.1	11.7	14.1	13.9	18.2	14.6	12.7	13.3	13.9	12.4	17.9	19.0	9.8	4.5	4.6	2.9	5.7	8.9	23.3	2.9	13.9	
26	9.8	12.3	10.2	8.5	7.0	4.4	4.7	3.8	3.1	2.9	3.0	4.0	4.7	4.3	3.5	4.4	4.9	7.8	8.0	8.2	8.6	8.4	11.8	12.9	12.9	2.9	6.7	
27	13.2	13.0	14.4	14.5	16.3	18.0	18.6	20.6	20.4	21.3	21.9	22.9	25.5	26.5	27.5	24.1	20.4	18.2	17.4	21.1	18.9	16.9	16.4	14.0	27.5	13.0	19.2	
28	9.5	8.7	8.5	9.9	8.8	6.9	4.8	5.0	5.0	5.3	5.4	7.5	9.3	9.0	8.9	9.6	10.2	10.7	12.3	13.7	12.8	12.6	11.9	11.5	13.7	4.8	9.1	
29	11.3	10.8	7.5	7.5	6.9	12.7	15.3	17.6	19.3	18.5	14.5	17.8	21.0	17.9	17.4	19.5	19.7	21.4	21.9	22.9	23.9	23.6	24.7	24.1	24.7	6.9	17.4	
30	25.8	25.1	24.4	24.6	25.1	24.5	23.8	22.1	24.8	25.8	23.4	23.7	25.3	23.3	22.8	20.3	22.7	26.2	25.0	24.2	28.7	23.4	26.1	22.3	28.7	20.3	24.3	
Max.	25.8	25.1	24.4	24.6	25.1	24.5	23.8	22.1	24.8	25.8	25.5	26.6	26.6	30.4	27.5	24.1	22.7	26.2	25.0	24.2	28.7	23.6	26.1	24.1	30.4			
Min.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2		
Avg.	8.0	8.0	7.8	7.9	8.0	8.3	8.5	9.0	9.0	9.3	10.1	10.1	10.4	10.2	10.2	9.8	10.0	10.2	9.9	10.1	10.0	9.1	9.0	8.7			9.2	

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (Climatronics) (m/s)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	17.0	20.5	18.7	16.1	13.6	11.3	10.4	12.2	10.1	11.3	13.8	13.0	11.0	11.9	6.7	7.3	6.8	6.0	3.0	1.9	3.6	2.8	4.8	5.7	20.5	1.9	10.0	
2	5.0	4.6	4.3	3.8	3.1	2.5	3.8	3.6	4.1	2.0	1.6	2.2	1.4	1.7	4.4	5.9	4.0	2.5	1.3	1.0	2.8	5.5	6.1	3.5	6.1	1.0	3.4	
3	3.8	7.8	10.1	16.5	16.9	17.3	17.6	17.1	16.8	14.6	12.7	12.9	11.2	9.0	7.9	5.8	3.1	1.9	2.5	2.9	3.6	2.7	4.1	3.1	17.6	1.9	9.2	
4	4.8	4.4	4.4	3.9	3.9	4.2	5.3	6.5	8.1	8.3	8.4	5.5	5.7	7.1	7.5	8.8	8.7	9.6	11.4	13.5	13.2	12.7	11.6	11.5	13.5	3.9	7.9	
5	9.3	9.3	9.1	9.4	8.2	9.8	10.4	11.7	10.5	10.1	10.3	10.8	13.2	15.8	17.4	18.4	17.7	19.0	20.3	21.2	22.7	23.8	23.8	26.7	26.7	8.2	15.0	
6	27.5	28.2	28.3	27.7	28.7	26.6	27.0	25.3	26.2	25.6	24.3	21.6	19.8	16.9	15.1	12.5	7.7	3.0	3.5	4.3	6.7	5.6	4.2	2.7	28.7	2.7	17.5	
7	3.7	2.9	2.6	3.2	3.2	3.1	3.3	3.2	1.4	0.2	0.2	0.2	10.7	12.8	12.7	16.0	18.4	18.7	18.3	19.0	19.3	19.7	18.8	16.1	19.7	0.2	9.5	
8	16.8	14.7	11.5	9.6	9.7	8.9	6.1	5.2	5.7	6.4	7.1	8.6	10.8	8.7	9.3	6.4	1.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	16.8	0.2	6.2	
9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	14.9	15.7	14.7	15.7	16.8	18.3	22.4	24.2	22.5	19.0	24.2	0.2	8.4	
10	18.1	18.9	16.3	16.0	13.8	12.6	5.8	8.9	9.8	6.9	8.8	7.1	6.1	8.5	10.2	9.9	7.9	6.7	4.4	3.9	5.4	7.4	9.0	11.0	18.9	3.9	9.7	
11	12.5	13.0	14.4	13.8	12.6	11.9	8.7	6.8	5.8	3.9														14.4	3.9	10.3		
12																												
13																									5.9	4.7	5.2	
14	5.0	4.4	4.3	5.9	6.2	5.3	5.4	6.0	6.2											5.7	5.1	5.9	4.9	4.7	4.9	6.2	4.3	5.4
15	7.3	6.7	7.3	8.0	8.4	9.6	9.2	9.0	8.2	8.0	8.6	9.8	10.0	10.6	10.9	11.6	11.2	10.4	10.7	10.0	10.8	9.6	12.3	12.1	12.3	6.7	9.6	
16	10.9	11.3	11.7	10.9	11.4	12.0	11.7	10.7	10.4	10.8	11.3	11.6	10.7	10.5	12.3	11.3	10.6	11.3	10.6	11.3	11.7	13.0	13.8	13.7	13.8	10.4	11.5	
17	11.7	13.5	13.6	13.8	13.6	12.5	12.5	11.3	11.8	10.8	10.6	9.3	10.8	10.5	10.3	9.2	9.4	8.4	7.5	6.4	4.9	4.3	4.3	3.9	13.8	3.9	9.8	
18	4.3	4.1	3.5	4.3	4.2	4.7	4.4	4.5	4.3	4.9	4.8	4.1	3.9	3.9	4.2	4.7	4.8	4.7	4.1	4.5	5.3	4.8	4.6	4.5	5.3	3.5	4.4	
19	5.2	6.0	6.3	7.3	6.8	7.0	6.4	5.4	6.8	7.2	5.6	4.8	4.3	5.4	5.8	5.6	5.1	4.8	4.4	4.4	5.5	5.0	4.2	3.1	7.3	3.1	5.5	
20	3.3	1.8	0.8	0.2	0.2	0.2	0.2	0.2	2.2	5.5	7.1	7.5	8.9	8.4	7.1	5.0	4.7	5.0	5.5	4.7	4.2	3.5	3.3	3.4	8.9	0.2	3.9	
21	3.3	5.9	7.1	7.9	8.5	8.2	7.5	6.1	5.9	4.6	4.9	3.8	4.2	4.6	5.3	3.2	4.5	5.1	6.8	8.4	10.0	6.8	5.3	11.4	11.4	3.2	6.2	
22	14.2	14.9	15.3	14.2	15.0	16.8	16.8	15.8	15.1	15.5	16.0	15.4	15.2	15.0	15.7	13.4	13.5	13.3	12.9	12.9	12.1	9.4	9.8	10.6	16.8	9.4	14.1	
23	13.1	13.6	11.5	11.9	11.1	4.5	4.0	4.4	5.7	5.6	6.8	6.6	6.9	8.9	8.2	5.5	5.1	3.7	1.6	0.9	2.6	2.0	1.7	1.3	13.6	0.9	6.1	
24	0.9	1.1	1.1	1.9	2.7	4.4	4.9	9.3	11.5	12.6	13.7	14.1	17.2	17.2	19.0	20.0	19.2	19.3	19.5	18.1	18.3	17.5	17.7	19.4	20.0	0.9	12.5	
25	19.9	19.1	18.5	18.2	18.1	17.4	15.7	14.5	13.7	14.5	13.9	15.2	17.0	17.4	17.1	16.6	15.4	14.3	13.4	13.0	11.5	12.1	10.7	9.2	19.9	9.2	15.3	
26	9.3	6.9	5.5	4.3	5.2	3.3	2.1	5.6	4.2	7.8	7.9	5.6	8.7	7.9	5.7	6.1	10.9	15.7	19.7	19.2	18.5	20.9	19.9	18.3	20.9	2.1	10.0	
27	21.5	23.6	23.1	23.0	24.7	21.7	21.0	21.8	18.3	15.3	14.4	12.3	11.9	11.4	10.5	8.6	7.6	7.4	6.6	3.0	2.5	5.4	5.3	6.4	24.7	2.5	13.6	
28	10.0	14.4	15.3	12.5	7.7	13.6	15.5	11.8	12.7	9.4	6.4	6.2	5.2	5.2	5.4	6.0	5.4	5.7	5.7	6.9	9.5	10.2	11.9	13.7	15.5	5.2	9.4	
29	15.7	15.6	15.9	16.0	16.1	14.0	13.5	13.3	14.0	11.9	12.4	13.0	11.1	10.2	12.2	9.3	10.3	12.2	11.5	9.8	9.1	8.2	7.4	7.4	16.1	7.4	12.1	
30	7.1	5.7	4.4	4.4	4.7	3.2	3.0	3.3	3.8	3.5	2.6	2.7	2.3	3.0	2.1	1.7	2.1	2.9	4.8	5.7	6.3	5.6	6.3	5.4	7.1	1.7	4.0	
31	3.9	3.8	3.5	3.3	3.5	3.5	3.1	3.7	4.4	4.9	4.9	4.6	4.9	4.3	3.9	4.9	5.4	5.5	5.2	5.3	5.8	4.7	4.6	5.1	5.8	3.1	4.4	
Max.	27.5	28.2	28.3	27.7	28.7	26.6	27.0	25.3	26.2	25.6	24.3	21.6	19.8	17.4	19.0	20.0	19.2	19.3	20.3	21.2	22.7	24.2	23.8	26.7	28.7			
Min.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.7	1.7	1.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		0.2		
Avg.	9.8	10.2	9.9	9.9	9.7	9.3	8.8	8.9	8.9	8.7	8.9	8.5	9.0	9.7	9.7	9.2	8.7	8.6	8.5	8.5	9.1	9.0	9.0	9.1			9.2	

Total Hours in Month 744 Hours Data Available 673 Data Recovery 90.5%

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.4	9.0	9.2	9.3	9.5	7.9	8.4	7.7	8.3	9.3	9.9	9.8	9.7	10.5	10.5	8.1	7.4	6.7	6.6	7.3	7.2	6.6	6.4	6.6	10.5	6.4	8.3
2	6.4	5.9	5.6	5.2	5.7	6.0	4.7	6.0	7.6	7.9	7.2	7.6	7.0	7.3	7.8	7.5	7.7	6.9	7.1	7.3	6.9	7.6	6.3	5.8	7.9	4.7	6.7
3	6.4	6.9	7.3	6.6	7.6	10.3	13.4	11.3	10.7	13.1	13.1	11.8	11.7	11.2	9.6	8.1	6.6	7.7	7.1	6.0	6.8	6.0	5.2	5.8	13.4	5.2	8.7
4	6.8	5.5	4.2	3.5	3.8	3.5	3.5	3.6	3.7	3.5	3.8	3.9	3.1	2.1	2.0	2.7	2.0	1.0	1.0	0.7	1.6	1.3	1.4	1.8	6.8	0.7	2.9
5	1.6	1.1	2.5	4.1	4.6	3.9	4.3	6.6	7.2	6.0	4.9	4.3	5.1	5.7	5.4	5.2	5.5	4.5	4.1	3.6	2.8	3.3	2.9	2.9	7.2	1.1	4.3
6	2.8	2.1	2.6	2.1	1.6	2.2	2.6	2.9	2.6	2.6	2.9	3.4	4.0	4.7	6.7	7.1	5.6	6.8	8.7	9.8	7.7	8.9	9.7	8.9	9.8	1.6	5.0
7	10.8	9.3	10.7	9.7	9.6	11.5	12.6	12.7	13.3	12.5	11.8	10.5	11.2	12.0	11.0	12.2	12.4	11.1	10.3	9.5	8.3	8.3	8.6	8.3	13.3	8.3	10.8
8	9.2	9.3	8.7	7.5	6.1	6.5	7.9	7.2	6.7	6.7	7.6	6.9	6.8	7.8	8.3	9.3	10.5	10.6	10.9	11.2	10.4	10.8	11.4	8.6	11.4	6.1	8.6
9	7.3	7.8	7.0	6.6	6.1	5.6	5.7	5.6	5.8	5.3	4.4	3.5	1.6	2.0	3.1	4.0	6.8	6.6	7.9	7.3	9.1	11.1	9.3	10.3	11.1	1.6	6.2
10	10.7	9.1	8.7	7.7	9.5	10.7	11.3	13.1	9.6	11.7	9.3	13.7	15.7	16.5	17.3	18.2	18.2	18.3	19.7	18.4	17.5	18.3	18.5	17.5	19.7	7.7	14.1
11	16.5	15.4	14.1	14.2	15.1	15.6	15.6	15.3	15.9	17.2	18.2	18.5	20.2	19.8	19.6	19.4	20.2	20.5	19.5	21.3	21.4	19.6	20.1	20.8	21.4	14.1	18.1
12	18.6	19.8	21.0	20.6	18.9	18.1	18.7	18.8	19.7	18.2	18.2	17.8	17.0	18.3	18.2	20.3	20.2	20.3	20.7	20.9	19.2	17.1	15.5	14.5	21.0	14.5	18.8
13	19.3	15.9	14.7	12.6	11.3	9.9	11.0	10.0	9.5	11.0	9.1	5.3	5.8	4.8	2.9	1.8	1.3	0.9	0.9	4.0	3.3	3.6	3.4	3.9	19.3	0.9	7.3
14	4.9	5.5	8.7	8.4	11.2	11.7	9.8	10.7	12.7	14.7	12.1	11.4	14.2	14.9	15.2	14.0	14.6	16.5	15.7	14.6	14.4	12.6	11.6	10.0	16.5	4.9	12.1
15	9.0	7.4	6.8	6.8	5.6	5.3	6.2	7.1	7.0	7.1	7.8	8.1	7.1	6.2	7.7	11.2	12.3	12.1	9.8	8.6	8.3	6.1	2.8	3.2	12.3	2.8	7.5
16	2.6	1.8	0.3	1.6	1.2	1.8	5.0	9.5	9.4	9.8	15.5	21.1	21.3	21.7	22.6	23.5	24.1	25.1	26.1	26.2	24.1	19.8	16.7	14.3	26.2	0.3	14.4
17	13.2	13.1	10.1	8.1	9.4	8.6	8.1	9.4	13.2	11.3	11.3	12.8	16.5								11.6	15.4	14.4	15.9	16.5	8.1	11.9
18	13.2	10.9	9.2	6.8	5.0	3.8	4.0	3.9	5.1	3.8	0.8	2.4	2.4	1.5	1.7	1.4	1.7	2.4	2.7	3.2	4.0	3.7	3.7	4.6	13.2	0.8	4.2
19	4.4	3.0	1.9	1.4	0.9	1.4	1.0	0.5	1.0	2.1	1.6	1.7	2.2	3.5	3.8	3.8	3.8	4.5	6.4	7.3	5.9	4.6	5.2	4.5	7.3	0.5	3.2
20	4.5	6.5	7.2	7.0	7.8	9.5	9.4	11.2	9.6	9.7	10.2	6.3	2.8	1.4	5.8	6.7	5.7	6.5	4.9	6.8	7.6	7.7	6.7	6.0	11.2	1.4	7.0
21	6.7	6.3	6.3	5.7	5.3	5.6	4.0	6.2	7.1	8.2	7.8	5.3	6.7	5.1	4.6	4.8	4.1	4.1	3.6	4.7	5.8	3.7	7.1	12.0	12.0	3.6	5.9
22	10.2	7.8	6.7	4.6	2.4	2.0	3.3	2.5	1.5	1.9	2.4	1.9	1.5	0.9	2.6	3.3	3.7	3.9	4.0	4.3	2.5	3.2	3.5	3.4	10.2	0.9	3.5
23	2.7	2.4	3.6	3.5	4.4	4.6	4.9	3.8	4.4	4.2	4.9	6.9	5.2	5.4	6.4	7.7	9.1	9.0	9.8	8.3	6.4	6.6	8.0	9.1	9.8	2.4	5.9
24	8.5	7.6	10.1	9.4	10.1	9.6	8.8	7.3	6.7	9.3	9.3	7.7	5.5	5.5	3.8	4.3	5.8	6.4	6.0	5.9	5.0	3.2	3.8	3.3	10.1	3.2	6.8
25	2.3	3.1	1.4	5.9	10.7	10.9	8.1	7.9	15.5	17.6	19.4	22.4	25.8	25.2	24.8	25.4	20.3	17.0	19.6	21.3	22.0	23.9	24.9	24.1	25.8	1.4	16.6
26	24.5	24.8	24.7	23.8	24.6	24.5	25.8	25.5	24.5	24.8	23.7	21.8	19.1	16.9	16.9	15.3	14.6	13.5	12.5	12.3	11.9	12.9	11.5	9.7	25.8	9.7	19.2
27	10.8	12.7	14.6	14.9	17.4	19.4	19.8	21.0	20.9	20.6	21.0	24.1	27.8	25.8	24.1	22.3	22.9	23.4	23.3	17.6	21.2	22.4	23.8	22.5	27.8	10.8	20.6
28	20.5	18.5	17.4	17.1	17.5	15.9	14.5	15.2	14.4	14.0	12.8	10.8	9.4	8.4	9.3	9.6	10.6	11.6	10.7	12.9	12.2	13.0	12.6	13.8	20.5	8.4	13.4
29	15.4	16.0	16.1	16.5	10.6	18.9	21.4	21.8	24.0	28.7	28.3	24.2	21.4	23.0	25.3	21.5	20.8	19.0	20.6	22.5	25.2	24.9	23.1	24.0	28.7	10.6	21.4
30	18.7	17.5	16.0	16.9	19.7	20.2	20.7	21.8	22.5	24.9	28.4	29.4	32.4	37.9											37.9	16.0	23.3
31																											

Max.	24.5	24.8	24.7	23.8	24.6	24.5	25.8	25.5	24.5	28.7	28.4	29.4	32.4	37.9	25.3	25.4	24.1	25.1	26.1	26.2	25.2	24.9	24.9	24.1	37.9		
Min.	1.6	1.1	0.3	1.4	0.9	1.4	1.0	0.5	1.0	1.9	0.8	1.7	1.5	0.9	1.7	1.4	1.3	0.9	0.9	0.7	1.5	1.3	1.4	1.8		0.3	
Avg.	9.8	9.4	9.3	8.9	9.1	9.5	9.8	10.2	10.7	11.3	11.3	11.2	11.3	11.2	10.6	10.7	10.7	10.6	10.7	10.8	10.7	10.6	10.3	10.2		10.4	

Total Hours in Month 744 Hours Data Available 703 Data Recovery 94.5%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1																											
2																											
3																											
4																											
5																											
6																											
7	3.3	3.9	5.3	4.7	3.9	1.6	0.9	3.0	2.1	1.5	0.9	0.4	1.8	2.3	1.9	2.1	1.7	1.2	2.0	2.7	1.6	1.9	3.1	3.7	4.7	1.6	2.9
8	2.4	2.9	2.7	2.4	2.2	3.7	4.3	5.0	6.6	6.7	6.3	5.5	5.4	4.9	5.1	5.0	5.4	5.7	5.9	5.4	5.8	4.5	4.5	4.5	5.3	0.4	2.2
9	4.0	3.7	4.6	3.7	4.1	4.4	4.5	3.9	3.7	4.4	4.6	3.7	3.9	4.7	6.1	5.3	4.5	2.8	1.4	1.2	1.4	0.7	0.6	1.8	6.1	0.6	3.5
10	1.1	1.4	1.3	1.2	1.1	1.3	3.0	2.8	3.8	4.3	3.8	4.1	4.1	3.9	4.8	5.3	5.1	3.3	3.2	3.4	3.4	2.6	2.4	1.6	5.3	1.1	3.0
11	0.8	0.9	1.6	1.5	1.2	1.2	1.8	5.1	8.1	8.9	12.3	10.6	6.7	8.8	10.0	11.5	11.9	11.5	15.4	16.2	14.2	14.4	14.2	13.6	16.2	0.8	8.4
12	13.0	13.5	13.8	12.7	12.4	12.6	12.4	11.2	9.3	11.1	11.6	11.4	10.8	12.0	11.9	10.4	9.9	10.4	8.6	7.3	8.1	9.4	8.7	4.7	13.8	4.7	10.7
13	9.1	10.1	10.1	10.6	8.8	9.0	10.6	10.8	9.3	8.1	5.8	4.1	3.2	3.5	4.9	5.7	10.2	14.5	14.7	14.1	13.8	12.5	11.7	9.7	14.7	3.2	9.4
14	10.8	10.6	10.3	10.8	9.5	9.5	9.4	9.6	9.8	8.7	7.5	10.9	10.2	8.7	8.5	8.5	7.3	5.8	4.5	5.2	3.4	1.5	1.3	0.9	10.9	0.9	7.6
15	1.3	1.7	0.9	0.4	1.2	1.5	2.4	2.3	2.0	2.1	2.1	2.7	1.6	1.9	1.8	2.7	2.9	3.0	3.5	3.5	2.6	2.0	1.7	1.2	3.5	0.4	2.0
16	1.2	1.2	0.7	1.7	1.2	2.3	1.7	1.6	1.9	1.8	2.4	4.0	4.0	4.6	3.5	2.2	1.4	0.8	0.3	0.2	0.9	1.2	0.9	0.3	4.6	0.2	1.7
17	0.5	1.0	0.7	1.6	2.5	2.6	1.5	1.7	0.9	0.5	0.6	0.8	2.0	3.4	3.6	6.3	5.5	6.5	6.8	6.0	4.5	4.2	3.4	3.0	6.8	0.5	2.9
18	2.7	2.3	1.8	2.2	1.7	1.0	1.3	1.4	1.3	1.5	1.7	1.3	0.9	0.5	0.5	0.5	0.7	0.5	0.5	1.6	2.4	2.4	2.9	3.3	3.3	0.5	1.5
19	4.5	5.3	5.3	6.6	7.6	10.8	12.3	11.9	11.1	11.5	11.0	10.8	8.7	10.9	13.5	13.5	13.8	15.5	16.7	16.3	15.1	15.6	17.2	17.1	17.2	4.5	11.8
20	17.5	18.7	16.1	14.1	13.9	12.0	11.9	14.2	14.9	14.2	13.8	14.9	13.2	13.2	14.2	15.1	16.4	17.7	14.8	12.8	13.8	17.0	16.7	13.5	18.7	11.9	14.8
21	17.2	16.6	18.7	20.0	20.5	21.6	16.7	12.7	12.5	11.5	10.8	12.9	12.1	12.7	13.7	12.1	9.3	8.7	9.2	8.6	8.3	7.2	7.4	11.1	21.6	7.2	13.0
22	9.2	7.3	5.3	7.1	7.2	7.1	6.6	7.3	7.1	6.8	6.0	5.0	4.4	4.4	5.0	5.0	5.1	6.0	6.0	5.2	7.8	8.2	6.0	6.5	9.2	4.4	6.3
23	5.8	6.5	7.6	5.8	6.8	7.8	9.1	8.5	7.9	7.3	8.5	7.8	10.3	12.0	13.1	11.9	8.8	9.1	9.6	6.6	6.5	7.6	9.6	11.5	13.1	5.8	8.6
24	11.7	10.3	7.9	7.3	8.7	11.2	11.4	11.2	12.6	9.4	11.3	14.2	17.0	15.0	17.4	17.9	17.7	19.1	19.8	20.2	21.8	18.3	16.5	19.8	21.8	7.3	14.5
25	21.0	17.5	15.6	17.2	16.7	16.0	12.5	10.1	9.8	10.9	9.0	8.8	7.7	6.8	6.2	7.8	6.4	4.3	6.2	6.5	6.3	6.1	6.7	7.0	21.0	4.3	10.1
26	8.0	7.3	6.7	8.1	6.2	6.7	6.2	6.0	8.6	10.6	8.6	4.0	4.1	6.4	6.8	8.1	8.5	8.9	7.1	7.3	7.1	7.1	7.7	8.1	10.6	4.0	7.2
27	8.5	9.0	9.0	7.3	6.9	6.2	7.0	6.9	6.8	6.2	5.6	6.2	5.8	6.2	6.1	4.7	4.7	5.7	6.1	6.1	4.4	3.5	2.8	3.9	9.0	2.8	6.1
28	4.4	4.4	5.3	6.0	5.7	5.5	5.8	5.5	7.0	6.2	6.9	8.1	9.8	8.9	9.8	11.1	11.9	9.5	11.1	6.0	8.6	10.6	7.8	9.8	11.9	4.4	7.7

Total Hours In Month 672 Hours Data Available 534 Data Recovery 79.5%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	8.5	8.9	9.8	10.9	8.6	10.4	9.9	9.8	9.4	9.3	9.2	9.5	10.9	10.4	11.0	11.7	11.2	12.8	15.1	13.3	12.6	14.4	13.5	13.4	15.1	8.5	11.0
2	13.1	14.6	13.7	14.0	14.4	14.6	15.3	15.0	14.3	15.0	14.2	14.0	15.4	13.9	13.8	14.9	15.4	14.7	12.2	16.1	17.8	20.8	19.2	19.5	20.8	12.2	15.2
3	16.5	15.7	16.1	14.8	13.2	13.7	14.0	15.1	11.2	13.3	10.6	5.7	7.5	7.4	7.8	7.1	9.8	8.4	7.8	8.4	9.4	8.1	7.6	11.8	16.5	5.7	10.9
4	14.0	14.9	17.3	18.0	17.9	17.2	16.3	15.7	15.2	14.6	16.2	17.2	15.9	19.9	19.3	20.7	20.0	20.8	19.8	15.8	14.7	14.7	15.7	14.8	20.8	14.0	16.9
5	15.2	16.8	16.6	16.1	17.8	16.6	20.1	19.0	18.9	21.3	22.8	21.7	21.4	18.9	20.9	19.5	20.2	19.3	18.7	19.6	20.8	18.5	15.7	16.4	22.8	15.2	18.9
6	15.2	13.8	15.5	17.1	19.6	22.4	21.0	21.6	19.2	21.0	22.0	26.7	26.2	25.1	25.9	26.5	27.1	26.3	26.0	25.4	26.0	25.8	25.4	21.7	27.1	13.8	22.6
7	21.2	22.5	24.2	28.6	28.1	21.4	22.9	25.7	21.9	24.1	22.3	19.4	22.8	26.8	27.4	27.1	23.4	23.1	25.8	24.5	23.6	26.4	26.6	25.6	28.6	19.4	24.4
8	25.4	24.6	21.2	19.8	19.9	19.7	18.6	16.4	15.8	13.9	14.1	13.2	13.3	12.3	10.8	11.8	14.7	16.7	17.5	18.6	21.3	22.5	23.2	17.7	25.4	10.8	17.6
9	14.6	13.2	12.0	14.1	14.9	16.8	15.8	11.2	12.1	13.1	14.2	15.8	12.4	12.2	11.6	11.5	10.4	10.0	9.6	7.9	7.2	7.0	6.6	6.3	16.8	6.3	11.7
10	5.9	5.9	5.8	6.2	7.3	8.1	7.3	9.0	10.3	10.6	11.8	9.4	7.0	5.6	7.5	8.0	8.2	8.2	7.9	7.9	7.8	8.0	7.9	9.5	11.8	5.6	8.0
11	10.1	11.1	12.9	12.8	12.8	17.1	17.4	15.9	14.0	16.6	16.8	17.3	13.3	14.0	16.1	15.9	17.0	19.1	20.7	19.6	20.2	20.9	18.4	16.8	20.9	10.1	16.1
12	17.2	20.6	20.7	21.7	18.2	16.1	16.8	16.3	16.3	19.7	19.4	17.6	19.3	17.8	20.4	20.3	20.0	18.3	19.3	14.9	20.6	18.7	19.1	15.7	21.7	14.9	18.5
13	13.7	14.1	13.4	15.2	15.8	17.8	16.1	15.8	17.1	17.1	15.8	17.7	18.0	17.6	18.7	17.7	18.6	16.8	19.8	19.6	17.4	18.4	18.1	21.2	21.2	13.4	17.1
14	20.4	19.4	19.8	19.2	17.4	18.9	17.9	19.4	16.6	15.8	19.7	21.5	23.6	21.9	21.1	21.1	23.3	24.1	20.0	20.7	18.5	17.6	19.0	20.6	24.1	15.8	19.9
15	18.2	20.7	15.4	15.8	15.5	10.9	9.0	7.2	7.7	7.7	7.6	8.1	9.2	8.1	7.9	8.8	9.7	10.8	12.3	12.8	13.8	15.0	14.4	10.4	20.7	7.2	11.5
16	8.7	8.6	6.2	6.1	6.8	6.2	6.7	7.1	7.3	7.3	9.3	7.8	7.2	6.7	8.0	8.0	8.8	8.7	7.8	7.1	6.9	8.0	7.6	7.1	9.3	6.1	7.5
17	7.0	6.3	6.1	6.0	4.7	4.3	4.2	4.4	3.4	4.6	3.7	4.6	5.2	4.1	3.5	3.2	3.8	4.0	4.8	5.5	4.9	4.4	3.3	2.5	7.0	2.5	4.5
18	3.0	1.4	0.6	1.2	2.1	2.7	2.7	2.4	0.8	0.7	0.6	0.9	1.7	2.6	2.5	2.0	2.4	2.2	3.9	5.7	6.6	7.2	5.8	5.7	7.2	0.6	2.8
19	5.4	4.7	5.8	5.0	4.7	4.5	4.3	4.4	4.0	3.2	3.8	3.4	2.1	2.4	2.1	2.1	2.8	2.3	2.8	3.0	2.6	2.5	2.2	1.4	5.8	1.4	3.4
20	0.6	2.1	2.6	2.9	3.7	3.4	6.4	6.6	9.5	11.6	13.4	14.1	12.4	12.2	12.4	12.2	13.0	11.6	8.3	9.1	8.0	7.0	5.9	4.8	14.1	0.6	8.1
21	4.7	4.8	2.4	3.5	4.0	5.0	6.8	7.7	9.4	11.0	10.8	10.6	11.7	11.7	10.3	8.0	9.1	8.5	8.2	6.7	7.1	5.5	6.6	6.7	11.7	2.4	7.5
22	9.0	11.0	10.5	9.1	7.8	7.8	4.8	4.3	6.2	7.3	7.7	7.9	7.6	6.8	9.2	8.0	9.0	7.9	7.1	5.4	6.0	7.0	9.1	10.8	11.0	4.3	7.8
23	11.6	10.2	9.5	10.4	12.6	14.7	12.8	12.8	11.4	8.7	8.3	10.1	13.0	12.7	12.9	15.3	16.9	15.6	14.7	12.5	11.5	11.5	10.5	11.4	16.9	8.3	12.1
24	10.8	10.3	6.6	4.6	6.7	6.3	6.2	5.4	6.5	5.9	6.4	6.0	5.4	5.5	5.1	4.5	5.2	5.5	6.0	5.8	3.9	3.1	2.7	1.8	10.8	1.8	5.7
25	0.9	1.5	1.3	1.3	0.8	1.5	2.0	2.2	2.3	1.9	2.1	1.8	2.1	1.4	1.3	4.2	3.3	2.4	3.0	3.7	6.2	7.1	8.6	8.6	8.6	0.8	3.0
26	8.0	5.8	8.0	8.7	13.9	15.4	15.0	12.8	10.8	9.8	12.9	16.0	8.4	6.2	6.6	6.8	3.8	6.0	5.1	7.1	9.0	10.6	11.4	10.4	16.0	3.8	9.5
27	9.2	8.0	8.9	9.4	8.9	8.8	9.8	8.7	10.4	12.4	13.0	11.2	13.7	14.6	13.0	9.9	13.2	13.0	12.1	10.2	11.7	13.7	15.1	15.3	15.3	8.0	11.4
28	12.0	12.0	12.2	12.2	11.1	11.5	13.5	12.6	14.8	15.1	14.3	16.0	15.4	11.5	12.7	12.5	9.8	9.8	9.6	9.0	9.8	10.4	10.2	8.9	16.0	8.9	11.9
29	7.1	6.5	6.4	9.5	5.8	5.7	7.1	6.8	7.4	6.2	7.1	8.0	8.7	10.0	11.6	11.5	9.8	10.4	11.1	12.6	12.6	11.2	12.3	11.4	12.6	5.7	9.0
30	11.3	11.2	11.1	9.1	10.6	11.0	10.8	8.2	6.5	4.9	4.8	4.5	5.1	5.2	3.2	2.3	2.0	2.9	2.0	1.9	1.5	0.9	0.8	1.6	11.3	0.8	5.6
31	1.7	1.8	2.2	2.7	2.3	2.0	1.8	2.0	1.4	2.2	2.0	1.9	0.9	0.7	1.2	2.6	4.1	4.9	5.8	5.0	5.2	5.3	5.3	5.6	5.8	0.7	2.9
Max.	25.4	24.6	24.2	28.6	28.1	22.4	22.9	25.7	21.9	24.1	22.8	26.7	26.2	26.8	27.4	27.1	27.1	26.3	26.0	25.4	26.0	26.4	26.6	25.6	28.6		
Min.	0.6	1.4	0.6	1.2	0.8	1.5	1.8	2.0	0.8	0.7	0.6	0.9	0.9	0.7	1.2	2.0	2.0	2.2	2.0	1.9	1.5	0.9	0.8	1.4		0.6	
Avg.	11.0	11.1	10.8	11.2	11.2	11.4	11.4	11.0	10.7	11.2	11.5	11.6	11.5	11.2	11.5	11.5	11.8	11.8	11.8	11.5	11.8	12.0	11.9	11.5			11.4

Total Hours in Month 744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.3	4.8	4.3	4.0	3.4	3.6	4.0	5.0	4.8	3.6	4.8	3.6	4.4	3.3	3.6	2.3	1.3	0.7	0.7	1.1	1.4	1.9	1.9	2.5	5.3	0.7	3.2
2	2.8	2.9	2.4	3.5	4.5	5.9	6.4	7.0	8.5	8.6	9.6	12.4	14.0	14.6	14.3	14.2	14.5	14.8	14.8	14.2	14.9	13.7	12.6	11.7	14.9	2.4	10.1
3	14.8	16.7	15.2	14.3	14.3	14.5	12.2	10.6	10.9	11.7	11.0	13.1	12.6	13.0	12.0	12.5	11.7	12.2	12.2	12.2	12.3	12.5	12.3	10.8	16.7	10.6	12.7
4	11.1	13.1	11.3	8.3	6.4	5.7	6.1	6.4	6.9	6.7	7.4	11.4	11.3	11.0	11.9	11.0	10.2	10.0	7.9	6.2	4.2	2.4	2.0	2.5	13.1	2.0	8.0
5	1.3	0.6	1.8	2.0	1.5	5.6	6.7	10.1	10.5	9.1	10.5	15.7	15.4	14.4	14.2	12.5	10.8	13.1	23.5	23.8	22.1	19.9	18.7	18.5	23.8	0.6	11.8
6	19.7	21.5	20.1	22.4	18.1	16.4	15.1	12.7	12.6	6.5	9.3	10.9	10.4	12.2	11.5	9.3	6.8	7.9	8.4	6.8	6.7	5.4	5.3	4.4	22.4	4.4	11.7
7	3.7	1.4	2.7	3.1	6.3	15.0	16.8	20.0	20.0	20.3	20.1	20.1	21.2	19.4	17.1	17.7	18.7	16.4	13.0	9.4	8.0	3.1	5.2	7.0	21.2	1.4	12.7
8	12.0	12.9	13.2	12.5	12.6	13.1	10.8	9.5	9.2	9.1	9.7	9.0	8.8	8.7	9.7	10.0	8.7	6.1	2.6	2.9	4.6	2.1	3.3	6.7	13.2	2.1	8.7
9	7.8	7.1	5.0	4.6	3.6	1.5	2.1	1.7	1.9	2.6	4.5	6.4	6.5	9.2	11.8	11.5	12.4	11.7	10.8	11.4	11.9	13.2	11.5	13.2	13.2	1.5	7.7
10	12.1	11.3	10.3	9.6	6.9	4.0	5.3	6.8	7.7	6.7	7.9	10.6	12.0	12.1	9.5	9.5	9.1	8.4	8.4	8.3	7.2	7.8	7.0	5.7	12.1	4.0	8.5
11	5.9	6.6	6.3	6.2	5.8	6.8	7.5	6.4	4.6	4.6	2.5	3.6	6.3	7.2	8.3	10.1	10.6	11.2	9.7	9.8	5.9	5.9	4.3	5.2	11.2	2.5	6.7
12	6.7	5.4	2.8	2.8	2.8	1.2	1.5	1.7	1.5	1.8	1.8	1.7	1.5	1.1	1.9	2.7	2.6	2.8	1.6	1.9	1.4	2.0	3.9	4.7	6.7	1.1	2.5
13	5.3	5.2	5.2	5.2	5.2	5.0	5.4	5.3	5.1	5.3	3.0	4.0	4.4	4.3	3.6	3.7	2.3	1.6	4.8	5.4	4.0	2.7	3.0	2.6	5.4	1.6	4.2
14	2.1	3.0	2.8	1.8	2.0	0.9	2.4	3.2	2.6	2.9	3.0	3.5	4.1	5.3	7.1	8.1	8.3	7.8	8.0	6.8	8.1	8.4	8.2	8.1	8.4	0.9	4.9
15	10.8	10.5	12.8	12.6	11.6	8.4	7.1	7.4	6.4	8.8	7.5	9.1	8.7	8.0	6.9	5.5	5.5	4.1	2.8	2.2	1.7	3.1	5.6	6.1	12.8	1.7	7.2
16	7.3	6.8	6.1	6.2	6.5	6.0	5.8	4.9	4.4	4.6	5.8	4.3	4.6	5.9	9.0	11.8	11.6	9.2	6.8	5.5	4.2	3.0	4.3	3.5	11.8	3.0	6.2
17	3.4	3.0	3.3	6.1	8.0	8.0	16.0	18.3	22.2	21.7	21.5	23.3	24.2	24.8	25.4	25.8	27.6	27.9	28.7	28.6	28.8	28.9	28.5	27.0	28.9	3.0	20.0
18	28.8	27.3	26.0	24.3	23.6	23.2	22.7	21.7	21.3	22.6	22.3	21.7	20.0	18.7	18.5	17.8	16.2	10.1	7.0	5.4	3.8	0.7	2.4	3.5	28.8	0.7	17.1
19	3.0	1.3	3.1	5.8	7.8	11.7	15.6	14.0	14.8	16.6	16.6	16.3	18.4	19.0	17.6	17.5	14.5	14.1	16.0	16.0	15.9	14.5	14.9	14.5	19.0	1.3	13.3
20	16.2	18.9	17.4	16.6	15.9	13.6	4.5	6.0	8.0	8.4	9.4	15.7	16.7	16.1	18.6	18.9	17.5	17.0	13.8	14.0	13.0	11.8	12.5	9.1	18.9	4.5	13.7
21	8.4	10.1	8.6	10.8	8.2	7.3	6.7	5.9	3.1	6.6	12.5	14.7	15.7	14.9	16.9	14.2	14.2	15.1	14.5	14.1	15.6	14.7	16.0	16.4	16.9	3.1	11.9
22	17.8	17.0	18.6	16.8	14.1	15.8	14.0	13.5	15.2	11.0	11.4	13.4	15.5	15.3	14.4	13.0	14.4	13.1	11.2	10.7	10.7	9.8	9.0	4.8	18.6	4.8	13.3
23	4.1	8.6	11.9	7.4	7.5	14.5	12.3	7.6	10.2	10.6	8.9	6.7	6.5	7.1	3.8	1.6	5.3	3.4	3.6	4.4	2.1	2.5	3.8	5.4	14.5	1.6	6.7
24	7.4	7.6	6.6	4.4	1.2	1.1	1.6	4.2	4.1	6.7	4.5	5.8	6.9	6.8	2.9	2.9	2.2	1.8	2.7	4.6	5.0	5.4	2.9	5.7	7.6	1.1	4.4
25	7.1	5.6	5.3	6.6	10.7	12.3	10.2	8.1	7.4	8.6	12.5	14.0	16.9	18.0	17.4	15.0	13.0	12.1	12.3	8.7	4.6	1.2	4.0	3.7	18.0	1.2	9.8
26	4.7	4.2	6.4	5.2	4.7	5.2	5.6	5.7	5.5	5.1	5.4	5.5	3.6	5.4	5.8	7.0	7.6	10.6	9.6	8.7	7.7	7.6	7.5	6.0	10.6	3.6	6.3
27	6.1	4.5	3.2	2.0	4.4	5.3	5.4	4.5	5.4	5.3	4.8	5.7	6.0	7.4	7.2	8.2	7.8	7.5	7.0	7.1	6.9	5.4	5.7	9.8	9.8	2.0	5.9
28	6.6	4.3	6.7	4.9	2.7	2.7	4.1	3.2	2.0	2.9	2.0	2.5	3.5	3.8	6.1	8.2	9.2	10.0	9.1	9.9	8.2	5.7	4.2	4.4	10.0	2.0	5.3
29	6.4	10.4	9.8	10.0	9.1	10.7	10.3	7.2	7.1	8.7	10.8	14.8	14.1	13.4	13.2	12.7	10.6	10.4	8.9	7.6	5.9	3.6	1.8	2.7	14.8	1.8	9.2
30	4.1	5.2	5.7	4.3	2.3	0.8	1.4	2.0	2.1	2.6	4.0	5.5	4.6	3.6	4.1	3.3	3.7	2.6	3.8	4.1	4.8	3.5	3.5	2.5	5.7	0.8	3.5
Max.	28.8	27.3	26.0	24.3	23.6	23.2	22.7	21.7	22.2	22.6	22.3	23.3	24.2	24.8	25.4	25.8	27.6	27.9	28.7	28.6	28.8	28.9	28.5	27.0	28.9		
Min.	1.3	0.6	1.8	1.8	1.2	0.8	1.4	1.7	1.5	1.8	1.8	1.7	1.5	1.1	1.9	1.6	1.3	0.7	0.7	1.1	1.4	0.7	1.8	2.5		0.6	
Avg.	8.4	8.6	8.5	8.1	7.7	8.2	8.2	8.0	8.2	8.3	8.8	10.2	10.6	10.8	10.8	10.6	10.3	9.8	9.5	9.1	8.4	7.4	7.5	7.6			8.9

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	1.7	1.3	1.2	2.1	1.9	1.2	1.7	1.2	2.2	2.6	2.9	1.8	1.6	1.8			1.6	2.8	4.1	2.0	1.8	1.8	1.4	2.3	4.1	1.2	2.0
2	2.5	2.4	1.1	1.8	0.9	2.5	3.7	3.2	2.4	2.5	1.9	3.5	3.6	8.3	5.5	6.6	9.6	11.4	10.9	12.2	11.9	9.9	7.3	7.8	12.2	0.9	5.6
3	8.1	5.0	4.8	4.6	3.9	3.4	2.0	1.4	0.8	2.1	4.1	3.8	3.5	2.5	2.4	2.7	3.7	9.0	5.6	3.8	3.2	2.9	1.4	3.1	9.0	0.8	3.7
4	3.8	3.7	2.2	1.9	1.8	2.6	1.0	1.3	0.9	1.2	1.5	1.6	2.6	4.0	5.1	4.7	5.0	5.2	4.9	3.3	2.0	1.2	2.6	2.6	5.2	0.9	2.8
5	1.8	3.2	3.1	3.1	2.1	3.5	4.7	4.4	2.8	2.7	5.7	5.6	5.8	6.0	5.6	6.5	7.1	8.5	7.6	7.1	7.8	8.1	8.2	8.2	8.5	1.8	5.4
6	7.5	5.7	8.1	8.4	8.8	7.6	6.3	5.8	5.0	7.0	7.0	6.8	7.0	7.6	8.4	9.6	9.9	9.8	9.4	9.9	9.7	9.0	8.2	8.0	9.9	5.0	7.9
7	8.0	8.7	8.6	8.1	6.4	4.8	5.2	3.6	3.0	4.6	4.4	4.5	3.5	3.8	4.9	3.9	4.0	4.4	3.6	3.7	4.1	4.2	5.6	5.5	8.7	3.0	5.0
8	3.7	0.9	1.4	1.0	0.5	0.9	1.3	1.5	1.0	0.9	1.5	0.9	1.8	1.5	2.8	5.2	4.9	4.3	4.2	4.2	3.6	3.0	3.9	3.2	5.2	0.5	2.4
9	1.2	1.9	1.5	0.9	1.2	3.5	4.3	4.5	4.5	4.6	4.2	4.5	4.4	5.0	5.3	5.8	6.0	5.5	5.7	5.2	4.1	3.6	2.7	2.6	6.0	0.9	3.9
10	3.0	3.0	2.7	2.2	1.9	2.0	1.4	1.1	1.0	1.3	2.8	2.5	3.1	3.9	4.0	3.9	4.8	5.3	4.9	4.7	5.3	4.9	3.6	4.5	5.3	1.0	3.2
11	3.7	4.5	2.5	2.4	3.4	5.7	5.6	6.2	6.1	9.7	10.9	9.8	8.6	8.7	8.7	9.1	9.1	8.9	8.6	8.6	8.8	8.5	8.1	7.5	10.9	2.4	7.2
12	6.5	5.4	5.3	6.2	5.4	5.2	6.7	6.8	6.5	7.7	9.8	10.0	9.3	10.2	11.1	11.2	11.3	11.1	10.7	10.2	9.2	8.5	7.0	6.3	11.3	5.2	8.2
13	4.1	4.2	5.8	6.0	6.2	6.3	5.7	5.5	5.1	6.5	7.1	9.0	8.8	9.0	9.1	8.9	9.1	8.7	7.3	7.2	5.9	4.4	3.6	4.5	9.1	3.6	6.6
14	4.3	3.1	3.4	4.3	8.2	8.9	5.4	5.1	5.1	6.6	9.2	9.1	8.4	8.7	5.4	7.5	8.2	9.2	10.5	8.2	8.9	7.9	5.8	6.6	10.5	3.1	7.0
15	4.4	4.6	5.1	7.0	6.4	5.4	2.9	2.0	2.7	3.2	3.2	6.8	8.5	9.1	6.7	5.3	4.8	4.8	4.0	1.6	2.6	5.9	5.4	5.2	9.1	1.6	4.9
16	5.4	5.7	3.8	6.0	6.8	6.5	6.0	5.1	4.3	4.2	3.7	4.4	4.0	6.3	3.7	2.1	3.8	6.7	5.3	5.3	7.2	7.9	9.3	9.7	9.7	2.1	5.5
17	9.4	8.6	8.5	8.2	7.0	6.6	6.6	5.8	5.6	5.2	6.5	8.6	8.6	9.2	8.4	10.0	11.1	11.6	11.4	10.9	10.1	7.7	6.5	5.0	11.6	5.0	8.2
18	4.1	5.4	7.3	5.5	5.4	5.4	5.6	5.2	5.7	5.9	5.2	5.0	4.2	3.8	3.9	4.6	3.8	3.0	2.1	1.9	3.5	2.6	2.7	3.1	7.3	1.9	4.4
19	4.3	3.2	3.0	2.8	3.2	4.3	2.6	2.9	4.1	3.1	3.6	4.8	5.6	6.2	5.4	6.5	7.3	6.8	7.4	7.9	6.1	4.0	2.6	2.7	7.9	2.6	4.6
20	2.5	1.7	1.6	1.5	1.0	0.6	1.2	1.0	1.0	1.2	2.7	1.6	1.7	2.1	2.5	3.5	4.4	5.3	5.3	5.1	6.0	4.3	4.9	5.1	6.0	0.6	2.8
21	4.2	1.4	1.7	1.2	1.4	1.0	0.8	0.8	1.4	2.2	1.2	2.2	3.1	4.0	4.4	6.6	7.8	9.0	10.1	11.2	13.0	13.5	11.7	11.7	13.5	0.8	5.2
22	12.0	10.5	10.9	10.9	10.8	8.8	6.8	8.8	11.6	8.5	13.7	11.7	12.7	13.7	13.3	11.4	12.4	11.9	11.8	7.1	4.9	3.8	5.2	4.7	13.7	3.8	9.9
23	4.0	2.0	2.8	3.1	2.5	3.2	1.5	3.1	5.8	6.0	8.9	12.8	14.3	16.4	17.1	15.9	13.1	17.5	16.6	17.5	16.5	14.5	14.5	15.3	17.5	1.5	10.2
24	14.7	13.1	14.4	15.8	16.0	14.2	12.3	13.2	13.9	15.7	15.2	10.4	10.5	8.6	7.7	12.6	11.1	9.8	12.1	11.8	12.6	8.0	6.5	5.0	16.0	5.0	11.9
25	2.9	5.1	3.7	5.3	4.3	4.2	2.9	2.4	3.1	3.3	3.1	3.8	4.2	4.6	4.1	4.1	3.6	4.4	4.7	2.8	1.3	1.1	1.9	3.9	5.3	1.1	3.5
26	4.7	5.3	3.9	5.3	6.9	5.4	5.4	5.5	5.8	7.2	6.5	5.0	6.5	8.7	9.5	10.6	9.8	9.4	10.3	9.6	9.1	10.0	9.1	8.2	10.6	3.9	7.4
27	7.1	6.3	6.3	6.0	6.1	6.8	7.4	6.6	7.2	7.0	7.8	8.3	8.6	8.3	9.1	9.5	9.4	10.1	10.8	11.1	11.4	11.4	9.3	6.6	11.4	6.0	8.3
28	6.9	7.7	6.8	8.0	8.1	6.0	5.5	5.2	5.0	5.9	7.1	8.7	10.2	9.8	12.4	11.6	11.1	10.8	8.0	8.3	8.5	7.0	7.0	5.3	12.4	5.0	8.0
29	5.8	4.2	2.0	2.6	2.8	5.1	5.7	5.7	5.7	5.9	5.4	4.7	3.2	2.2	3.6	2.7	6.1	5.8	4.0	4.7	4.7	4.7	4.1	2.3	6.1	2.0	4.3
30	1.9	0.6	1.0	2.0	3.0	2.8	2.0	2.1	1.9	1.0	1.6	2.6	3.6	7.8	8.6	10.2	9.4	8.9	9.3	7.5	6.2	6.3	5.3	4.4	10.2	0.6	4.6
31	4.9	4.3	2.6	3.7	4.4	4.0	5.5	8.1	13.8	11.4	12.3	11.3	9.2	6.9	3.9	1.8	3.5	4.6	3.6	3.7	4.3	5.5	5.0	5.2	13.8	1.8	6.0
Max.	14.7	13.1	14.4	15.8	16.0	14.2	12.3	13.2	13.9	15.7	15.2	12.8	14.3	16.4	17.1	15.9	13.1	17.5	16.6	17.5	16.5	14.5	14.5	15.3	17.5		
Min.	1.2	0.6	1.0	0.9	0.5	0.6	0.8	0.8	0.8	0.9	1.2	0.9	1.6	1.5	2.4	1.8	3.5	1.6	2.1	1.6	1.3	1.1	1.4	2.3		0.5	
Avg.	5.1	4.6	4.4	4.8	4.8	4.8	4.4	4.4	4.7	5.1	5.8	6.0	6.1	6.7	6.8	7.1	7.5	7.8	7.5	7.1	6.9	6.3	5.8	5.7			5.8

Total Hours in Month 744 Hours Data Available 741 Data Recovery 99.6%

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	5.5	6.0	4.6	3.4	4.8	4.1	4.9	5.2	4.3	5.6	6.6	8.5	9.2	10.7	8.7	11.8	12.3	9.7	12.0	7.9	9.8	8.0	6.9	6.6	12.3	3.4	7.4	
2	6.8	4.9	4.1	5.6	6.0	5.9	5.7	5.1	4.9	3.8	4.6	5.3	5.6	6.2	4.5	5.2	4.7	4.2	4.0	3.6	4.4	4.9	4.4	4.1	6.8	3.6	4.9	
3	2.7	2.0	1.1	1.9	3.3	3.5	3.0	2.4	2.2	1.6	2.5	2.9	2.1	2.0	3.1	2.1	2.8	3.0	2.4	1.8	2.4	1.6	2.7	4.4	4.4	1.1	2.5	
4	5.7	6.5	6.3	7.2	8.1	7.3	8.6	7.7	6.3	5.6	6.4	6.8	6.4	6.4	4.5	2.8	2.4	1.5	5.2	8.9	9.4	10.4	9.0	9.1	10.4	1.5	6.6	
5	8.7	8.7	7.7	6.3	5.6	4.9	3.2	5.5	8.5	10.2	11.6	14.1	16.2	17.5	18.2	17.1	16.8	16.8	14.9	14.1	14.5	13.2	12.4	13.3	18.2	3.2	11.6	
6	9.4	6.4	7.2	9.4	10.4	10.0	6.8	3.5	2.0	1.9	4.5	5.0	6.3	6.0	5.3	7.4	7.7	6.6	4.9	4.3	5.9	4.1	4.6	3.6	10.4	1.9	6.0	
7	2.2	1.7	2.2	2.9	3.0	5.0	6.0	5.6	6.0	6.2	8.1	8.8	9.7	8.2	7.9	17.0	17.7	17.3	18.1	16.8	13.7	13.7	13.0	9.8	18.1	1.7	9.2	
8	5.5	7.6	6.1	5.9	4.2	3.4	3.1	2.3	5.3	4.9	3.0	2.9	4.7	4.2	6.8	7.0	7.2	7.3	10.4	11.1	11.2	11.1	9.6	8.2	11.2	2.3	6.4	
9	4.8	5.5	5.1	4.6	3.3	2.3	1.8	2.0	3.2	3.7	3.5	4.0	3.6	3.3	4.0	3.6	2.8	2.0	2.2	4.4	5.9	6.3	7.1	8.0	8.0	1.8	4.0	
10	7.7	7.8	7.0	8.1	8.7	8.9	8.8	9.1	10.1	9.9	10.0	9.6	8.2	6.7	6.3	5.6	5.8	5.1	5.3	4.1	5.2	2.9	2.9	3.3	10.1	2.9	7.0	
11	2.1	2.0	5.2	5.5	5.8	4.5	4.6	4.5	3.5	4.0	5.1	4.7	5.5	7.2	8.8	7.7	9.6	9.6	11.4	9.5	9.2	9.4	7.5	6.2	11.4	2.0	6.4	
12	6.4	6.3	5.5	5.4	4.6	3.1	3.4	3.2	3.8	4.7	5.7	5.9	5.6	5.7	5.5	5.0	4.2	4.4	4.4	3.7	3.3	3.1	3.4	2.9	6.4	2.9	4.5	
13	2.5	1.8	1.8	2.7	2.1	1.8	2.4	2.4	2.7	2.9	2.5	2.2	2.0	4.8	4.4	2.6	1.7	3.3	3.6	3.8	5.3	5.0	3.7	4.0	5.3	1.7	3.0	
14	4.2	4.2	5.2	5.9	6.7	6.1	4.8	5.4	5.2	4.6	4.8	4.6	2.8	3.5	2.6	3.0	2.6	2.0	2.3	3.9	4.6	5.0	7.6	8.4	8.4	2.0	4.6	
15	6.1	5.9	6.4	6.6	6.2	7.1	9.0	9.1	9.7	9.5	10.5	9.7	8.8	7.6	7.1	8.5	9.2	9.0	9.7	9.2	9.7	9.0	7.5	6.5	10.5	5.9	8.2	
16	7.2	7.7	7.1	7.8	8.4	8.3	8.8	7.4	7.2	6.2	5.9	6.9	7.9	8.7	8.0	8.2	7.9	7.1	6.9	7.9	8.3	7.8	7.1	7.9	8.8	5.9	7.6	
17	6.8	5.7	7.2	6.2	5.5	4.7	3.6	2.8	3.2	2.7	2.1	1.5	3.3	2.6	2.0	3.4	4.1	3.8	4.1	3.4	4.2	4.0	4.0	4.4	7.2	1.5	4.0	
18	4.5	4.0	4.0	3.8	3.5	4.1	3.2	2.3	2.6	2.7	3.1	2.7	1.3	2.2	1.8	1.7	2.4	3.8	1.9	3.4	3.5	2.3	2.8	2.4	4.5	1.3	2.9	
19	3.7	5.1	5.5	5.3	5.4	5.9	5.4	5.4	8.2	9.3	8.1	9.5	9.7	9.7	9.9	10.5	11.0	10.3	9.7	10.6	11.4	11.3	9.5	8.9	11.4	3.7	8.3	
20	8.4	9.3	9.5	9.2	9.3	10.2	9.4	8.6	9.8	10.3	11.4	11.7	11.9	11.1	10.7	10.8	11.2	12.0	10.8	10.8	11.7	11.1	12.5	8.3	12.5	8.3	10.4	
21	6.7	7.6	7.2	7.9	7.5	6.7	6.5	6.4	7.5	6.8	6.7	7.9	7.5	7.6	8.3	8.5	7.6	8.1	7.4	6.7	9.0	9.8	9.6	9.7	9.8	6.4	7.7	
22	6.3	2.1	2.3	1.7	1.2	1.8	3.7	5.1	5.1	4.3	4.7	4.2	3.5	3.9	4.2	4.0	3.6	4.4	4.7	4.9	4.3	3.7	5.0	6.3	6.3	1.2	4.0	
23	6.1	6.4	6.9	9.0	10.5	10.9	12.3	13.1	12.9	14.0	14.0	15.3	16.1	16.1	15.4	14.9	15.3	15.2	15.4	14.0	13.3	15.0	13.5	13.3	16.1	6.1	12.9	
24	13.4	13.1	11.9	11.1	10.1	9.6	8.0	8.1	7.7	8.1	7.2	9.1	11.8	11.8	12.3	10.9	10.3	10.8	11.4	11.9	11.8	10.7	9.6	8.0	13.4	7.2	10.3	
25	6.9	7.6	7.6	8.2	8.2	7.1	7.4	8.1	8.6	9.0	10.2	10.9	10.6	10.8	11.6	12.8	13.3	12.1	11.9	11.5	12.0	9.9	8.4	8.1	13.3	6.9	9.7	
26	7.7	6.5	5.7	6.7	7.9	6.1	6.2	6.1	6.3	6.8	6.1	5.0	5.5	3.6	3.9	3.3	3.2	2.3	2.5	3.5	5.6	6.0	6.0	4.8	7.9	2.3	5.3	
27	3.8	3.5	4.0	3.2	2.8	3.0	3.1	2.8	2.4	2.7	1.3	2.6	3.9	4.6	5.5	6.0	6.8	6.7	6.3	6.6	6.2	6.4	4.2	1.9	6.8	1.3	4.2	
28	1.0	1.8	3.1	3.0	1.9	1.7	1.9	2.1	1.7	2.2	2.3	2.1	3.3	3.2	4.4	4.8	5.0	3.2	2.7	6.2	6.6	6.5	5.6	5.0	6.6	1.0	3.4	
29	4.8	4.8	5.0	3.3	2.6	2.4	2.4	3.2	3.1	3.9	3.8	4.3	4.3	4.7	4.9	4.6	4.4	5.7	6.4	6.0	5.7	5.4	4.5	3.5	6.4	2.4	4.3	
30	2.0	2.5	1.7	2.8	0.4	1.1	2.4	3.1	3.9	2.7	2.6	3.5	3.4	4.0	4.0	4.7	4.5	4.6	4.9	4.4	4.9	7.0	3.6	3.5	7.0	0.4	3.4	
Max.	13.4	13.1	11.9	11.1	10.5	10.9	12.3	13.1	12.9	14.0	14.0	15.3	16.2	17.5	18.2	17.1	17.7	17.3	18.1	16.8	14.5	15.0	13.5	13.3	18.2			
Min.	1.0	1.7	1.1	1.7	0.4	1.1	1.8	2.0	1.7	1.6	1.3	1.5	1.3	2.0	1.8	1.7	1.7	1.5	1.9	1.8	2.4	1.6	2.7	1.9		0.4		
Avg.	5.6	5.5	5.5	5.7	5.6	5.4	5.3	5.3	5.6	5.7	6.0	6.4	6.7	6.8	6.8	7.2	7.3	7.1	7.3	7.3	7.3	7.8	7.5	6.9	6.5		6.4	

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	3.6	1.8	2.2	2.4	1.8	2.6	2.6	3.3	3.6	3.8	4.3	4.3	4.9	4.3	3.9	5.2	6.4	5.4	4.8	4.6	5.2	5.3	4.1	2.4	2.1	6.4	1.8	3.8
2	1.7	2.7	4.0	2.7	2.6	1.7	0.9	0.7	0.9	4.3	4.9	5.9	5.3	5.1	4.6	5.3	5.7	5.4	6.4	6.4	6.3	6.7	6.7	4.9	5.0	6.7	0.7	4.2
3	4.1	3.1	2.6	1.3	1.5	5.0	4.9	4.5	5.1	5.0	3.3	2.7	3.4	3.7	3.2	2.5	4.0	6.3	6.5	5.9	5.2	4.0	4.1	4.5	6.5	1.3	4.0	
4	5.6	6.8	6.0	5.5	6.2	6.3	5.6	5.9	5.5	5.7	6.0	6.7	7.1	6.6	7.0	8.1	9.1	8.8	7.2	4.7	4.0	4.4	4.8	6.6	9.1	4.0	6.3	
5	6.4	5.4	5.8	6.5	4.8	3.1	2.1	1.1	2.0	3.6	4.1	4.9	4.9	4.2	4.1	5.0	4.6	3.1	1.1	7.0	7.8	7.9	7.6	7.1	7.9	1.1	4.8	
6	5.4	5.8	5.1	5.1	5.3	5.3	4.8	3.8	3.8	3.1	3.9	3.9	2.4	2.3	2.7	2.8	3.7	3.2	2.8	2.8	2.0	1.5	2.2	1.3	5.8	1.3	3.5	
7	1.3	1.8	2.0	2.4	2.3	2.3	2.5	1.7	1.5	2.4	1.7	1.6	2.5	1.9	1.8	3.5	3.2	2.9	2.2	3.3	3.8	1.8	1.5	2.3	3.8	1.3	2.3	
8	2.3	2.2	1.6	1.1	0.8	1.1	1.1	1.8	1.8	3.2	2.9	4.1	4.9	5.4	5.0	5.3	6.4	7.2	7.7	8.9	8.6	8.3	8.9	8.9	8.9	0.8	4.6	
9	9.6	9.7	7.1	7.3	5.3	7.0	6.5	6.7	6.2	5.6	3.6	2.6	3.5	3.2	3.3	1.8	2.1	3.1	3.3	4.1	3.6	3.0	3.0	3.5	9.7	1.8	4.8	
10	3.6	3.3	3.8	2.9	2.4	1.2	1.2	1.4	2.1	3.5	3.8	4.1	3.9	2.6	5.4	4.8	5.3	8.3	8.4	7.9	6.7	6.3	5.9	6.3	8.4	1.2	4.4	
11	6.6	6.0	5.3	5.5	5.4	7.2	6.7	6.7	6.7	6.3	6.3	6.9	7.4	7.5	7.5	7.0	6.7	6.6	6.6	6.5	6.9	6.0	5.5	3.7	7.5	3.7	6.4	
12	4.1	2.6	2.0	2.6	1.7	2.6	2.5	2.6	2.9	2.8	3.7	2.9	3.2	3.7	4.4	4.8	6.7	4.9	3.8	3.9	3.9	3.5	4.6	5.2	6.7	1.7	3.6	
13	4.9	5.0	5.3	5.1	5.4	4.8	3.8	4.1	4.1	3.5	3.7	4.1	5.5	5.3	5.4	5.1	5.3	4.6	4.2	3.7	3.7	3.4	3.4	3.7	5.5	3.4	4.5	
14	2.8	3.7	3.8	3.5	3.9	3.0	2.7	2.5	4.1	3.1	3.7	4.8	5.2	5.0	4.9	6.6	7.0	6.7	6.4	5.8	4.6	4.3	4.6	4.9	7.0	2.5	4.5	
15	3.5	3.3	2.4	2.3	2.5	2.8	1.1	0.9	1.8	1.6	2.2	2.4	2.1	1.6	5.0	6.2	6.7	7.3	6.7	6.1	6.1	6.5	5.7	4.4	7.3	0.9	3.8	
16	3.1	3.6	1.7	3.0	3.9	4.7	5.0	5.6	5.9	5.9	7.3	7.2	7.0	6.0	6.0	6.1	6.9	6.3	6.2	7.0	8.1	8.5	8.0	6.2	8.5	1.7	5.8	
17	6.0	5.8	4.8	4.9	4.9	4.0	3.9	4.0	4.6	4.4	3.2	3.0	1.9	1.5	3.5	4.0	6.4	7.9	9.0	8.6	6.7	6.2	6.7	7.2	9.0	1.5	5.1	
18	6.7	5.9	7.6	6.7	7.8	6.0	6.0	4.1	3.2	3.0	2.9	2.3	1.6	3.3	2.9	4.8	5.3	4.6	5.0	3.5	1.9	1.5	0.9	1.1	7.8	0.9	4.1	
19	2.2	3.2	3.0	2.9	2.7	2.8	2.9	2.5	3.4	4.0	3.9	3.2	3.0	3.5	2.5	2.0	2.3	1.9	3.9	3.3	2.6	1.7	2.6	2.4	4.0	1.7	2.9	
20	1.7	1.6	1.4	0.6	0.3	0.7	0.5	0.9	1.0	1.0	1.8	3.2	1.5	1.1	1.9	3.1	3.5	3.6	5.0	5.8	5.2	6.4	7.2	4.4	7.2	0.3	2.7	
21	4.3	1.5	1.2	1.0	1.8	2.2	2.8	1.3	2.4	3.3	3.0	2.8	1.6	4.1	5.0	6.4	6.9	7.0	6.6	5.7	5.2	5.0	5.3	4.4	7.0	1.0	3.8	
22	3.9	5.6	6.1	5.8	6.3	6.7	6.8	6.5	6.9	6.6	6.4	6.1	6.6	6.5	6.6	6.0	5.5	5.5	5.8	5.5	5.2	3.9	4.0	5.3	6.9	3.9	5.8	
23	4.6	4.7	4.4	2.7	1.6	1.1	1.5	1.4	2.8	3.1	3.9	3.8	4.5	5.1	6.3	7.4	9.2	10.8	11.2	9.8	10.5	9.2	9.5	10.8	11.2	1.1	5.8	
24	10.8	9.7	10.9	12.7	12.8	11.7	11.5	9.5	7.3	6.3	6.8	6.2	5.3	3.8	5.4	5.9	6.7	6.3	3.9	3.0	2.7	2.1	6.1	6.4	12.8	2.1	7.2	
25	7.0	7.0	4.8	3.4	6.6	10.1	2.9	8.5	8.9	10.0	10.5	8.8	6.1	6.8	6.9	5.8	6.4	5.2	4.4	6.3	4.4	3.8	2.6	1.9	10.5	1.9	6.2	
26	3.1	2.1	0.8	1.0	3.1	3.8	3.7	5.0	5.4	5.4	5.4	4.2	3.9	3.7	3.0	2.2	2.5	3.3	4.6	6.0	6.6	4.0	3.0	3.7	6.6	0.8	3.7	
27	1.7	3.3	4.0	3.9	3.7	4.5	3.8	4.9	5.0	5.3	6.0	5.3	5.2	6.6	7.4	7.1	6.2	6.1	8.1	6.7	6.0	4.6	4.8	3.9	8.1	1.7	5.2	
28	4.0	5.2	5.3	5.5	5.0	5.1	4.6	5.3	5.1	4.2	5.3	6.2	4.7	5.9	6.8	6.6	7.1	7.1	8.0	7.9	8.2	8.7	7.3	5.1	8.7	4.0	6.0	
29	3.9	2.9	3.7	4.0	4.9	5.5	6.9	7.4	6.3	6.5	6.2	6.0	7.0	7.2	7.0	7.1	6.1	5.9	6.1	5.3	6.4	6.8	4.8	4.2	7.4	2.9	5.8	
30	4.9	4.2	4.0	4.1	3.3	2.5	2.7	2.5	1.5	1.9	1.0	1.2	2.3	3.3	2.0	3.7	5.2	5.0	5.2	5.1	5.1	4.0	4.6	5.0	5.2	1.0	3.5	
31	3.7	3.2	3.0	3.0	3.5	3.1	3.9	3.9	4.6	5.5	6.2	6.4	6.3	6.6	7.1	6.9	7.4	8.4	6.9	7.4	9.9	11.6	12.3	12.3	12.3	3.0	6.4	
Max.	10.8	9.7	10.9	12.7	12.8	11.7	11.5	9.5	8.9	10.0	10.5	8.8	7.4	7.5	7.5	8.1	9.2	10.8	11.2	9.8	10.5	11.6	12.3	12.3	12.3	12.8		
Min.	1.3	1.5	0.8	0.6	0.3	0.7	0.5	0.7	0.9	1.0	1.0	1.2	1.5	1.1	1.8	1.8	2.1	1.9	1.1	2.8	1.9	1.5	0.9	1.1		0.3		
Avg.	4.4	4.3	4.1	3.9	4.0	4.2	3.8	3.9	4.1	4.3	4.4	4.5	4.3	4.4	4.8	5.2	5.7	5.7	5.7	5.8	5.6	5.2	5.1	5.0			4.7	

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	11.1	10.5	9.7	11.8	10.6	10.7	13.5	13.4	13.5	15.2	16.5	15.4	15.3	12.5	12.4	14.0	13.7	13.4	11.8	13.2	14.5	14.3	13.9	14.3	16.5	9.7	13.1
2	12.7	13.2	13.2	16.1	13.9	14.5	15.6	15.0	15.6	16.7	16.8	15.9	17.3	16.8	15.1	16.5	17.4	15.4	14.5	12.9	12.0	11.7	10.8	8.6	17.4	8.6	14.5
3	9.4	9.2	8.6	8.8	7.0	6.8	7.5	7.6	7.8	8.0	8.3	11.1	10.8	11.9	13.5	14.1	15.1	14.9	13.9	12.4	11.5	11.4	11.0	13.6	15.1	6.8	10.6
4	13.6	14.9	13.4	13.0	14.8	13.5	11.7	11.8	13.0	13.5	13.8	13.8	12.6	10.9	11.2	10.3	11.1	12.8	13.3	12.5	12.1	11.0	10.7	12.3	14.9	10.3	12.6
5	11.2	11.2	11.9	12.3	13.3	9.6	7.5	7.5	6.3	9.9	11.1	10.4	12.0	13.5	12.3	12.3	13.4	11.8	12.4	10.4	10.5	12.9	13.4	14.1	14.1	6.3	11.3
6	13.1	12.6	11.5	10.6	11.1	7.5	8.8	11.0	10.5	12.8	12.6	12.1	12.6	13.0	12.7	12.1	12.0	12.8	11.0	12.6	12.0	10.1	9.0	8.1	13.1	7.5	11.3
7	6.7	6.2	5.9	7.6	11.2	9.7	7.6	8.5	10.8	10.9	11.5	11.6	11.1	11.8	12.2	12.2	10.8	11.6	12.3	11.0	10.2	8.3	7.2	5.9	12.3	5.9	9.7
8	5.6	6.5	4.3	3.8	7.0	4.7	5.9	7.6	7.3	7.3	7.8	8.4	8.5	8.1	7.5	5.6	7.3	7.1	7.4	7.9	6.5	5.7	7.1	7.6	8.5	3.8	6.8
9	7.5	6.1	5.6	5.9	6.1	6.4	5.8	7.4	6.3	6.3	3.1	4.4	3.1	1.7	2.4	1.6	2.0	4.6	4.7	4.3	4.3	3.7	3.1	2.0	7.5	1.6	4.5
10	2.7	4.6	4.5	3.7	3.5	2.4	1.9	0.9	0.8	2.1	3.0	2.9	3.0	2.8	3.5	3.6	4.1	4.5	5.1	4.4	4.6	4.4	4.5	4.4	5.1	0.8	3.4
11	3.8	2.2	2.7	4.1	2.7	1.6	2.2	2.8	2.9	2.8	2.3	1.0	1.5	2.3	2.0	3.2	3.0	4.1	4.4	3.4	2.0	2.0	2.1	2.6	4.4	1.0	2.7
12	3.1	2.2	4.7	3.6	3.4	2.9	3.2	2.0	1.8	1.6	1.9	2.1	4.1	4.7	2.1	3.9	4.4	6.0	5.5	5.2	6.7	3.3	7.0	5.8	7.0	1.6	3.8
13	2.8	0.6	1.4	2.9	3.3	2.4	1.9	1.5	1.6	1.5	2.2	4.0	3.6	3.9	4.0	4.4	4.2	5.9	4.9	4.8	3.9	6.8	8.8	9.8	9.8	0.6	3.8
14	10.0	10.9	11.0	6.7	3.7	3.2	1.8	5.5	6.5	5.6	6.1	5.0	5.2	4.9	5.0	3.7	3.6	4.3	4.7	2.6	2.2	3.8	4.3	5.0	11.0	1.8	5.2
15	6.5	6.7	7.0	8.6	8.2	11.3	9.8	10.4	10.1	11.0	8.8	10.7	9.8	8.3	9.3	7.7	6.8	7.1	6.9	6.2	5.4	6.3	4.3	3.8	11.3	3.8	8.0
16	3.6	3.3	2.1	1.5	1.2	1.5	1.1	0.9	1.9	2.8	1.8	2.1	1.9	1.8	1.3	1.8	1.3	2.0	4.8	4.7	5.0	5.1	4.6	4.3	5.1	0.9	2.6
17	4.3	4.3	4.4	4.4	5.4	6.6	5.6	6.1	4.5	4.7	7.9	8.5	7.7	8.1	7.1	8.6	9.3	11.6	12.4	11.6	12.0	12.0	11.5	12.0	12.4	4.3	7.9
18	12.0	11.9	13.5	13.9	14.2	15.3	16.0	16.9	16.4	16.7	17.5	18.1	18.1	18.3	19.7	20.9	20.0	20.7	19.5	20.7	20.8	19.5	19.0	19.9	20.9	11.9	17.5
19	19.4	19.3	19.7	19.4	17.4	15.0	11.3	10.3	13.4	12.9	11.9	13.2	14.6	14.6	16.0	16.0	17.0	16.4	14.8	14.6	15.4	13.3	12.4	10.4	19.7	10.3	14.9
20	9.8	7.1	6.5	6.5	7.1	8.3	7.6	7.0	9.0	8.3	7.4	6.1	6.3	7.0	8.0	9.2	9.6	9.9	10.9	10.7	10.6	8.1	8.0	7.3	10.9	6.1	8.2
21	7.1	8.1	9.5	9.5	8.6	9.9	10.0	8.9	7.0	7.9	7.9	9.6	9.6	10.0	9.9	8.4	8.7	8.0	7.5	7.8	7.5	7.0	9.1	8.6	10.0	7.0	8.6
22	8.6	8.9	9.3	10.7	11.2	9.4	8.4	8.9	8.6	8.3	8.7	9.1	9.1	9.1	9.1	9.1	9.5	9.4	8.7	8.8	9.2	8.2	7.5	6.2	11.2	6.2	8.9
23	4.6	3.7	2.9	1.4	1.0	2.1	1.0	0.5	1.3	2.4	4.2	5.1	6.3	5.9	6.7	7.3	7.3	7.6	7.6	6.9	7.0	6.8	7.1	6.6	7.6	0.5	4.7
24	7.3	6.0	8.5	9.1	7.8	7.8	8.0	7.5	6.7	7.1	7.9	6.9	7.2	7.4	4.7	4.0	4.7	2.6	4.5	2.7	2.2	1.9	1.7	3.7	9.1	1.7	5.7
25	3.6	2.4	2.0	2.1	3.4	4.8	3.3	2.1	1.9	2.2	2.4	2.6	3.4	5.3	5.1	6.2	7.7	7.6	6.2	6.2	4.8	6.4	3.9	3.9	7.7	1.9	4.0
26	4.6	5.1	4.4	5.1	3.0	3.2	2.7	3.0	3.7	3.0	3.8	5.4	6.0	6.3	5.9	5.8	5.8	6.7	6.9	5.6	5.1	3.6	3.9	4.1	6.9	2.7	4.7
27	6.2	6.5	6.0	5.2	3.4	3.8	2.8	1.8	3.2	3.6	3.1	5.3	6.6	6.0	5.1	3.9	4.0	4.8	3.7	2.5	2.5	2.0	1.3	1.3	6.6	1.3	3.9
28	1.4	3.3	2.4	2.3	1.1	1.2	0.6	1.6	1.6	1.1	1.4	2.2	2.0	3.0	4.2	3.8	3.2	3.5	5.1	6.9	7.5	8.6	6.0	6.3	8.6	0.6	3.3
29	5.7	6.1	7.3	7.9	8.6	7.7	8.1	10.1	10.3	10.2	10.1	10.0	11.0	10.5	10.7	10.6	9.3	9.8	9.7	8.8	7.2	7.5	8.4	7.8	11.0	5.7	8.9
30	6.1	6.0	6.4	6.3	6.8	8.1	8.1	8.6	7.4	7.0	6.1	5.5	4.6	4.6	4.2	5.1	4.1	3.5	3.0	3.5	3.5	4.5	5.3	5.0	8.6	3.0	5.5
31	4.2	4.5	4.3	3.7	4.0	4.0	4.1	3.7	3.3	2.9	4.1	4.0	3.2	2.9	2.7	2.8	2.9	3.0	1.4	1.2	0.9	1.6	2.3	1.9	4.5	0.9	3.1
Max.	19.4	19.3	19.7	19.4	17.4	15.3	16.0	16.9	16.4	16.7	17.5	18.1	18.1	18.3	19.7	20.9	20.0	20.7	19.5	20.7	20.8	19.5	19.0	19.9	20.9		
Min.	1.4	0.6	1.4	1.4	1.0	1.2	0.6	0.5	0.8	1.1	1.4	1.0	1.5	1.7	1.3	1.6	1.3	2.0	1.4	1.2	0.9	1.6	1.3	1.3		0.5	
Avg.	7.4	7.2	7.2	7.4	7.2	7.0	6.6	6.8	6.9	7.3	7.5	7.8	8.0	7.9	7.9	8.0	8.1	8.5	8.4	8.0	7.7	7.5	7.4	7.3			7.5

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	0.6	0.6	1.2	1.9	1.7	2.0	1.9	1.2	2.5	3.7	4.9	4.5	4.0	3.5	3.4	4.0	4.5	4.6	4.5	5.2	5.1	5.5	6.0	5.0	6.0	0.6	3.4			
2	5.0	4.6	4.7	4.5	3.7	3.5	3.6	4.4	3.4	3.1	3.2	4.0	5.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	2.2			
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	8.4	17.8	17.4	18.0	17.8	17.0	17.7	18.0	0.0	6.8			
4	14.9	13.2	13.3	10.9	5.0	2.4	1.1	3.0	3.5	4.8	5.4	3.1	1.3	5.8	4.0	3.0	3.0	5.9	7.5	9.4	9.1	9.2	7.9	8.1	14.9	1.1	6.4			
5	6.5	6.0	6.9	5.9	6.5	5.6	4.6	3.0	3.4	2.2	3.1	5.4	5.5	5.4	5.7	4.4	4.5	3.4	4.6	5.5	3.8	1.7	1.9	1.4	6.9	1.4	4.4			
6	0.9	2.9	3.5	1.1	1.3	2.1	2.4	3.5	4.0	5.5	5.1	5.1	5.5	5.5	6.6	5.5	5.5	6.7	5.7	3.9	3.4	3.6	3.2	2.7	6.7	0.9	4.0			
7	3.3	5.3	5.7	5.6	6.1	6.9	6.6	10.7	10.8	14.3	14.3	15.2	17.6	19.0	19.3	20.9	21.4	19.7	20.8	21.1	21.2	20.6	21.8	22.7	22.7	3.3	14.6			
8	20.2	18.2	15.5	14.4	11.8	12.8	13.6	12.5	11.6	11.8	12.3	12.8	11.5	9.9	10.1	9.7	9.2	9.4	6.9	8.0	6.5	5.9	6.7	7.6	20.2	5.9	11.2			
9	7.5	6.4	6.6	6.3	6.2	7.8	7.7	6.7	5.2	5.3	5.4	4.7	4.9	5.2	5.7	5.3	4.9	3.9	2.2	2.2	2.8	4.3	3.6	2.1	7.8	2.1	5.1			
10	1.4	2.2	2.8	1.7	2.1	1.9	1.8	1.3	1.3	2.4	2.6	4.4	5.8	8.1	10.9	12.1	12.0	10.5	9.6	10.7	13.7	15.7	14.6	14.2	15.7	1.3	6.8			
11	13.9	14.8	15.3	15.9	17.4	17.6	18.1	18.6	19.3	18.7	19.9	19.6	21.6	23.2	21.7	22.7	22.7	26.2	25.7	21.4	21.7	22.6	23.6	22.2	26.2	13.9	20.2			
12	20.5	20.0	19.4	17.6	13.1	8.9	5.8	4.6	4.4	4.5	3.8	3.5	5.2	7.1	6.7	7.0	6.9	6.7	8.0	8.6	8.6	8.6	8.1	6.9	20.5	3.5	8.9			
13	5.1	4.3	4.4	4.6	4.6	4.9	5.7	7.2	6.4	5.8	5.1	4.8	5.2	5.6	5.8	4.2	4.1	5.1	4.4	4.4	4.8	4.7	3.7	3.3	7.2	3.3	4.9			
14	2.6	2.0	2.8	2.7	3.4	3.3	2.8	1.4	1.6	0.6	0.6	1.2	1.5	2.0	2.0	2.3	5.0	5.0	6.6	6.4	6.8	7.1	8.9	7.3	8.9	0.6	3.6			
15	8.0	5.0	7.6	8.6	8.0	8.3	7.6	7.3	7.1	5.8	8.9	9.8	10.4	10.5	11.7	10.3	9.7	10.9	9.6	8.7	7.1	4.8	5.5	6.7	11.7	4.8	8.3			
16	8.6	6.8	6.0	6.3	6.8	5.8	5.7	5.8	4.3	3.4	3.2	4.7	5.9	5.9	5.6	6.4	7.2	6.8	6.1	7.0	8.8	7.8	7.7	5.1	8.8	3.2	6.1			
17	2.7	1.6	1.9	1.0	3.9	4.3	6.9	6.4	4.9	4.9	4.6	4.9	5.1	6.4	5.6	4.9	3.9	2.9	3.6	3.2	4.4	5.2	5.1	5.3	6.9	1.0	4.3			
18	6.3	6.7	8.6	7.4	8.6	9.8	12.3	12.0	10.0	13.9	16.6	19.0	21.7	20.3	21.1	20.5	19.5	17.7	16.6	15.7	14.3	11.1	6.6	4.5	21.7	4.5	13.4			
19	5.6	6.5	6.3	6.9	6.7	6.2	5.2	8.7	5.5	5.5	7.7	8.6	9.9	10.4	12.3	13.0	13.0	13.0	13.2	12.1	12.4	10.1	11.7	10.8	13.2	5.2	9.1			
20	10.5	12.4	12.4	13.1	11.9	10.1	10.9	10.6	10.6	10.1	9.7	8.0	8.2	7.3	7.1	5.9	6.0	5.5	6.1	6.2	3.7	4.3	2.9	7.4	13.1	2.9	8.4			
21	4.7	3.1	3.1	4.8	6.5	7.1	7.1	7.8	9.0	8.0	8.9	9.6	10.2	9.9	9.1	8.2	7.7	7.9	6.9	6.0	6.5	4.9	5.0	3.6	10.2	3.1	6.9			
22	4.7	4.0	5.0	3.6	3.1	3.3	3.4	2.2	0.9	1.0	2.8	5.7	6.2	7.3	10.0	10.9	12.4	13.0	13.0	13.0	10.1	9.6	12.3	8.3	13.0	0.9	6.9			
23	5.5	4.2	2.2	4.5	3.1	3.5	3.5	2.6	2.4	4.0	4.2	4.3	5.3	7.2	8.4	9.0	8.2	7.0	7.7	8.5	7.7	7.8	7.6	6.0	9.0	2.2	5.6			
24	6.3	6.9	4.4	7.1	8.4	6.8	6.6	6.7	7.2	8.0	8.9	7.6	7.3	6.2	8.3	6.7	6.9	5.9	6.5	5.3	3.6	4.4	5.9	7.4	8.9	3.6	6.6			
25	7.0	7.7	7.9	5.4	6.0	7.6	9.2	8.7	8.4	9.0	7.3	6.3	7.4	6.8	6.8	7.2	6.6	8.0	8.2	7.6	7.6	7.3	7.1	7.8	9.2	5.4	7.5			
26	6.5	6.5	5.5	6.0	6.0	3.3	2.6	1.5	2.0	2.2	2.9	4.5	3.4	2.7	1.8	1.5	1.3	3.1	4.6	5.3	5.1	4.7	5.6	6.8	6.8	1.3	4.0			
27	7.4	7.8	8.3	5.9	3.0	2.5	2.2	1.2	2.0	1.8	2.8	2.4	4.5	4.6	4.7	5.3	6.8	7.8	9.2	12.3	15.3	17.9	18.9	18.5	18.9	1.2	7.2			
28	17.7	17.7	19.1	18.2	15.8	16.9	15.2	13.2	11.9	9.9	8.8	9.3	9.2	8.2	6.2	4.7	3.0	3.5	3.3	2.4	2.1	1.5	2.6	2.8	19.1	1.5	9.3			
29	5.6	6.6	7.1	7.3	6.9	5.5	5.5	4.0	3.5	2.9	1.9	3.3	1.9	4.5	5.1	5.1	5.1	3.4	3.4	3.9	4.4	5.4	4.9	7.3	1.9	4.7				
30	6.1	5.7	6.7	5.7	6.0	6.5	7.7	7.7	8.3	6.6	7.1	8.4	9.4	7.2	6.4	4.5	4.3	5.1	6.5	6.0	2.9	1.7	4.2	2.9	9.4	1.7	6.0			
Max.	20.5	20.0	19.4	18.2	17.4	17.6	18.1	18.6	19.3	18.7	19.9	19.6	21.7	23.2	21.7	22.7	22.7	26.2	25.7	21.4	21.7	22.6	23.6	22.7	26.2	26.2				
Min.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.6	0.6	1.2	1.3	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Avg.	7.2	7.0	7.1	6.8	6.5	6.2	6.2	6.2	6.0	6.2	6.6	7.1	7.6	7.8	7.9	7.5	7.5	7.9	8.3	8.2	8.1	7.9	8.0	7.7	7.2	7.2				
Total Hours in Month	720																								Hours Data Available		712	Data Recovery		98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	4.6	5.2	4.8	3.4	3.7	5.4	4.9	3.9	3.2	1.3	2.6	3.0	2.4	5.0	8.1	9.4	10.5	10.1	12.2	11.1	12.4	10.3	11.3	12.9	12.9	1.3	6.7	
2	12.2	13.4	14.2	15.7	15.9	14.8	14.0	13.3	12.2	12.0	13.8	14.7	14.7	12.6	12.3	12.2	12.5	11.9	12.2	11.6	12.1	10.4	10.5	10.1	15.9	10.1	12.9	
3	11.0	11.6	11.7	12.1	11.2	9.4	9.4	8.1	9.0	9.5	11.2	11.2	11.2	9.8	9.9	10.6	10.6	11.4	6.6	4.5	1.4	1.2	0.9	1.1	12.1	0.9	8.5	
4	1.7	1.0	1.4	2.9	4.3	4.6	7.0	6.6	11.5	12.4	15.7	16.2	17.6	17.4	17.1	16.2	14.6	13.2	12.6	13.8	12.5	12.9	13.4	12.1	17.6	1.0	10.8	
5	11.6	11.9	12.8	13.0	14.1	14.2	12.7	11.5	10.3	10.5	8.4	6.8	2.9	6.8	13.5	14.6	15.4	15.4	17.3	14.2	11.7	8.7	10.8	12.3	17.3	2.9	11.7	
6	11.4	10.2	11.8	12.8	13.3	13.5	13.1	16.0	15.0	15.1	12.6	10.7	13.2	13.5	11.7	11.9	12.3	11.2	10.5	9.2	6.3	7.4	8.5	8.3	16.0	6.3	11.6	
7	8.4	7.7	9.4	7.8	8.9	10.2	10.0	10.9	13.2	12.6	13.3	13.8	14.3	16.1	16.5	15.9	15.6	16.6	17.8	17.0	15.2	16.4	13.2	11.5	17.8	7.7	13.0	
8	11.9	11.3	10.2	13.6	14.9	13.5	10.3	9.0	9.8	12.1	13.4	12.7	13.7	12.9	12.7	12.2	12.1	9.8	8.0	6.8	7.8	8.9	11.0	6.8	14.9	6.8	11.1	
9	7.4	7.9	6.9	4.7	2.2	1.6	1.1	1.3	1.7	1.5	0.9	0.7	0.8	1.1	2.2	2.5	4.3	5.4	5.7	3.3	3.3	4.4	6.3	6.5	7.9	0.7	3.5	
10	6.6	7.3	7.7	7.1	6.2	7.9	9.0	7.9	8.0	8.0	8.7	9.4	7.9	8.6	10.3	8.6	8.0	7.8	7.1	4.9	4.2	3.7	3.1	3.3	10.3	3.1	7.1	
11	2.9	3.6	3.8	3.1	3.3	2.5	2.6	1.4	1.2	2.0	3.0	3.8	4.4	6.5	7.3	8.1	9.0	8.2	8.4	7.3	7.8	8.3	9.7	11.1	11.1	1.2	5.4	
12	10.2	9.6	9.0	6.7	6.3	6.8	5.5	2.4	1.5	1.0	0.9	1.0	1.5	2.5	2.5	2.7	2.8	2.2	2.6	4.5	6.7	4.6	5.1	4.7	10.2	0.9	4.3	
13	5.2	5.2	4.6	5.0	5.2	4.9	5.4	8.6	7.0	7.4	6.5	7.0	7.7	7.6	6.8	6.9	7.9	8.8	10.1	8.1	8.5	8.8	8.8	9.6	10.1	4.6	7.1	
14	8.3	7.0	8.5	10.1	8.6	7.1	6.7	7.1	5.7	4.5	4.1	5.5	6.1	4.8	5.6	4.2	6.4	5.8	4.8	5.6	6.0	5.4	4.4	2.9	10.1	2.9	6.1	
15	1.8	2.3	2.5	1.9	1.3	0.8	0.7	1.5	3.3	1.8	1.4	1.5	1.3	1.8	1.4	1.4	1.2	1.3	1.7	2.7	3.2	3.0	2.7	2.7	3.3	0.7	1.9	
16	3.1	3.5	3.4	2.8	2.9	3.9	5.3	6.2	6.2	6.0	5.4	6.1	6.6	8.1	8.9	9.7	9.2	8.3	8.3	9.1	10.1	10.7	9.1	7.7	10.7	2.8	6.7	
17	7.0	7.2	8.0	8.1	8.7	8.1	7.1	6.9	6.8	7.1	7.0	5.8	5.3	6.0	6.6	6.4	5.6	4.8	5.9	5.5	5.1	4.9	5.3	5.1	8.7	4.8	6.4	
18	4.0	3.7	3.4	3.0	2.5	2.1	1.9	1.7	1.5	1.4	1.4	1.4	1.4	3.1	5.1	5.0	5.2	5.3	6.1	6.8	6.5	7.2	7.2	5.9	7.2	1.4	3.9	
19	6.1	6.0	4.4	4.6	4.1	2.1	2.2	1.7	1.3	1.6	1.8	1.7	0.8	0.2	1.0	1.2	1.4	1.7	1.5	3.0	2.7	3.2	3.1	3.1	6.1	0.2	2.5	
20	1.9	2.3	1.7	2.5	2.1	2.2	2.9	2.5	2.3	2.0	3.0	2.9	4.7	6.3	5.7	6.5	6.6	5.5	7.2	8.0	9.5	9.9	8.4	9.8	9.9	1.7	4.9	
21	9.5	10.0	8.6	9.8	10.0	12.0	15.4	8.5	7.4	5.3	4.1	5.1	5.1	6.7	8.8	6.5	4.6	3.4	1.8	2.1	2.9	3.6	4.2	4.3	15.4	1.8	6.6	
22	4.6	4.7	5.7	5.6	5.8	4.7	4.4	3.8	2.9	1.3	2.1	2.1	1.2	1.8	2.4	3.2	3.5	2.2	1.2	1.6	1.4	1.9	2.1	1.9	5.8	1.2	3.0	
23	2.0	2.1	1.4	1.5	2.0	1.8	1.5	1.7	1.9	2.2	1.7	2.6	2.6	3.9	3.9	3.4	1.9	4.9	7.0	6.2	4.6	2.6	2.9	2.5	7.0	1.4	2.9	
24	2.1	3.0	2.4	2.5	4.0	4.4	3.8	3.3	3.6	5.5	5.3	6.9	5.2	7.3	7.0	4.9	4.5	4.8	3.5	4.7	5.0	5.9	5.5	6.1	7.3	2.1	4.6	
25	5.6	7.7	13.7	15.2	15.8	19.4	22.6	21.9	23.7	26.2	27.2	27.4	26.8	26.2	24.6	23.9	22.9	23.4	22.0	20.1	13.8	7.8	6.0	7.4	27.4	5.6	18.8	
26	4.6	4.8	4.1	4.2	4.3	5.9	5.0	3.6	5.3	5.4	5.3	4.8	5.0	4.9	4.8	4.8	4.3	4.4	4.0	5.2	7.6	9.7	9.8	9.0	9.8	3.6	5.5	
27	7.1	8.7	9.9	10.1	9.0	7.8	5.8	6.8	4.3	3.3	3.7	5.0	2.3	3.0	9.2	9.4	7.7	8.0	7.3	5.7	3.9	2.3	4.0	4.8	10.1	2.3	6.2	
28	3.9	5.0	3.6	1.9	1.7	0.9	1.8	2.4	3.7	4.1	4.0	4.4	5.0	4.1	4.0	4.6	4.7	4.4	6.5	5.9	6.5	8.2	9.9	13.6	13.6	0.9	4.8	
29	14.5	16.3	17.4	18.5	18.5	17.7	19.7	21.7	22.2	23.8	20.7	21.8	23.3	23.2	19.2	20.4	18.9	15.5	12.9	12.9	19.8	19.5	18.9	17.2	23.8	12.9	18.9	
30	7.7	5.2	9.3	10.6	10.5	12.4	8.0	6.2	7.0	7.3	6.8	5.4	4.2	2.1	4.1	1.9	4.2	6.5	6.0	3.4	2.7	4.3	3.4	3.2	12.4	1.9	5.9	
31	2.8	4.3	2.7	6.3	11.1	12.6	10.8	9.1	10.3	11.5	12.3	11.2	11.3	9.8	7.9	5.3	5.8	3.9	5.6	6.4	6.7	7.0	5.8	6.3	12.6	2.7	7.8	
Max.	14.5	16.3	17.4	18.5	18.5	19.4	22.6	21.9	23.7	26.2	27.2	27.4	26.8	26.2	24.6	23.9	22.9	23.4	22.0	20.1	19.8	19.5	18.9	17.2	27.4			
Min.	1.7	1.0	1.4	1.5	1.3	0.8	0.7	1.3	1.2	1.0	0.9	0.7	0.8	0.2	1.0	1.2	1.2	1.3	1.2	1.6	1.4	1.2	0.9	1.1		0.2		
Avg.	6.5	6.8	7.1	7.3	7.5	7.6	7.4	7.0	7.2	7.3	7.4	7.5	7.4	7.9	8.4	8.2	8.2	7.9	7.9	7.5	7.5	7.4	7.2	7.3	7.2		7.5	

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.9	5.9	5.5	6.4	4.8	3.4	5.9	3.9	0.8	2.7	3.1	2.1	2.2	2.2	1.8	1.3	2.1	4.8	7.7	9.6	12.3	12.5	10.7	10.7	12.5	0.8	5.4
2	10.7	10.5	6.6	2.4	2.7	3.2	3.9	3.9	3.4	3.7	4.8	5.0	5.2	5.4	5.9	6.7	8.8	8.2	8.7	8.5	9.1	8.7	7.7	7.9	10.7	2.4	6.3
3	8.0	7.1	5.7	4.9	4.2	3.2	2.2	1.0	0.6	0.5	0.2	0.5	0.6	0.7	0.9	1.3	4.1	6.0	4.9	3.8	5.5	8.4	9.1	9.3	9.3	0.2	3.9
4	11.4	13.1	15.2	16.0	17.7	17.9	18.3	18.0	17.1	17.5	17.1	15.2	15.0	16.1	14.4	12.8	13.1	14.2	13.0	11.6	11.1	10.7	10.0	9.4	18.3	9.4	14.4
5	9.7	8.4	7.8	8.1	8.4	6.4	4.4	3.4	4.1	4.5	4.8	4.5	3.6	4.3	5.1	4.7	4.7	6.5	6.1	5.5	5.2	5.8	8.7	7.2	9.7	3.4	5.9
6	10.0	13.6	14.7	13.5	14.4	13.6	13.4	16.9	16.4	16.8	20.0	18.9	19.7	23.6	21.9	15.9	19.5	20.8	19.1	17.5	18.4	18.3	15.9	10.9	23.6	10.0	16.8
7	8.8	9.0	10.0	12.2	12.1	14.5	15.7	14.6	13.9	15.1	14.2	15.0	14.5	13.6	11.5	9.3	10.6	9.2	9.2	10.2	9.1	10.3	8.8	2.8	15.7	2.8	11.4
8	3.3	4.2	5.3	7.5	6.4	11.0	16.4	20.7	22.3	21.9	23.7	25.6	22.5	16.5	15.3	15.8	16.2	15.1	13.3	12.9	13.1	11.7	8.0	8.6	25.6	3.3	14.1
9	10.6	8.3	8.9	8.3	7.8	7.9	8.7	8.6	7.8	7.6	7.5	7.7	7.3	8.8	11.0	10.5	10.2	10.2	7.2	7.2	7.1	3.4	1.9	1.6	11.0	1.6	7.8
10	2.7	3.7	4.1	4.6	4.7	5.5	5.0	4.9	5.5	4.2	6.1	5.3	6.2	7.3	8.2	8.2	6.3	5.1	3.9	2.9	4.4	3.4	4.9	4.2	8.2	2.7	5.1
11	3.8	2.9	3.0	3.0	3.9	4.1	3.8	3.8	3.5	2.6	3.1	3.6	5.9	6.3	5.4	5.4	6.8	6.2	4.8	3.3	2.7	1.4	1.8	1.9	6.8	1.4	3.9
12	1.9	2.1	2.2	0.6	0.8	1.9	2.2	2.1	1.7	3.1	3.2	2.9	2.1	2.7	3.7	6.1	7.1	7.9	8.2	8.7	8.4	6.8	8.2	8.6	8.7	0.6	4.3
13	10.7	10.1	9.5	9.2	8.5	9.1	11.1	12.7	12.5	11.4	11.5	9.3	7.0	4.6	5.8	4.1	1.1	2.7	4.2	6.7	6.6	6.1	7.2	8.8	12.7	1.1	7.9
14	10.0	8.6	8.9	9.6	8.8	7.4	8.3	5.5	3.4	2.8	2.3	2.9	3.1	3.1	2.5	1.3	2.1	3.1	3.9	2.9	1.2	1.1	1.8	1.9	10.0	1.1	4.4
15	2.2	2.9	2.9	3.8	6.2	6.7	7.5	7.0	7.4	9.1	8.5	8.6	9.3	10.7	10.9	12.0	10.4	12.1	16.1	16.5	16.1	16.1	11.9	13.5	16.5	2.2	9.5
16	17.7	20.2	20.8	20.8	22.5	21.2	23.0	23.5	23.5	23.9	25.0	24.8	24.5	24.2	25.2	23.9	21.3	20.4	25.7	22.8	23.3	21.0	20.5	20.5	25.7	17.7	22.5
17	17.1	18.6	20.5	20.2	21.5	21.4	19.6	17.6	18.3	19.3	19.5	18.3	20.4	18.7	18.4	19.1	18.4	16.3	11.9	11.9	14.2	15.0	13.3	13.3	21.5	11.9	17.6
18	11.8	10.4	8.8	7.5	7.0	5.9	5.8	5.5	5.5	5.2	4.5	5.4	5.3	4.9	4.5	4.0	3.4	3.7	3.3	2.1	1.0	0.9	1.7	2.0	11.8	0.9	5.0
19	1.8	1.9	2.9	1.7	2.4	2.2	2.6	2.7	3.3	4.1	4.4	4.1	7.3	8.0	6.9	5.8	7.3	4.6	3.8	6.4	4.4	2.8	5.2	6.9	8.0	1.7	4.3
20	8.3	8.9	7.7	7.3	8.8	16.2	18.4	18.9	21.0	23.6	24.3	25.3	25.3	29.0	25.7	22.5	20.3	18.8	10.7	9.7	12.8	9.8	9.6	9.3	29.0	7.3	16.3
21	11.3	14.2	14.8	11.6	11.9	13.4	15.6	13.2	11.8	12.9	16.2	14.7	14.4	12.4	14.3	15.0	14.2	17.3	19.4	19.2	16.5	16.3	13.2	16.3	19.4	11.3	14.6
22	14.9	10.9	11.0	12.5	6.0	3.1	5.1	7.3	8.9	12.7	21.6	21.1	20.3	18.9	15.3	14.8	14.8	11.1	18.8	22.3	20.2	14.8	14.4	9.9	22.3	3.1	13.8
23	9.4	10.4	9.9	8.4	9.3	12.1	10.6	7.4	4.8	4.9	4.8	4.3	4.3	3.3	4.1	2.0	1.7	2.5	1.1	4.7	5.4	6.3	6.9	6.8	12.1	1.1	6.1
24	4.6	3.7	2.2	1.5	2.0	2.0	2.6	2.4	3.2	3.3	5.1	6.5	6.3	12.4	16.8	18.9	19.7	19.2	21.5	22.5	18.6	19.0	18.4	21.6	22.5	1.5	10.6
25	19.8	21.9	20.7	19.7	18.5	17.6	13.1	11.7	14.0	13.8	17.6	14.4	12.7	13.2	13.8	12.3	17.5	18.5	9.8	4.6	4.6	2.9	5.9	9.1	21.9	2.9	13.6
26	10.0	12.5	10.4	7.5	6.2	4.4	4.8	3.8	3.0	2.8	3.0	4.0	4.7	4.3	3.5	4.5	4.9	7.9	8.0	8.2	8.7	8.2	11.9	12.8	12.8	2.8	6.7
27	13.0	12.8	14.2	14.2	15.9	17.5	18.1	19.9	19.7	20.5	21.0	21.9	24.3	25.2	26.1	22.9	19.6	17.6	16.9	20.3	18.2	16.4	16.0	13.7	26.1	12.8	18.6
28	9.5	8.7	8.5	9.9	8.8	7.0	4.9	5.0	5.0	5.3	5.4	7.0	9.2	10.2	9.7	9.5	10.2	10.6	12.2	13.5	12.7	12.4	11.7	11.4	13.5	4.9	9.1
29	11.2	10.7	7.5	7.6	6.9	12.5	15.0	17.1	18.6	18.0	14.2	17.3	20.2	17.4	16.9	18.8	19.0	20.5	21.0	21.8	22.7	22.5	23.4	22.9	23.4	6.9	16.8
30	24.5	23.8	23.2	23.3	23.8	23.3	22.7	21.1	23.5	24.5	22.3	22.6	24.0	22.2	21.8	19.6	21.7	24.9	23.7	23.0	27.1	22.3	24.8	21.3	27.1	19.6	23.1
Max.	24.5	23.8	23.2	23.3	23.8	23.3	23.0	23.5	23.5	24.5	25.0	25.6	25.3	29.0	26.1	23.9	21.7	24.9	25.7	23.0	27.1	22.5	24.8	22.9	29.0		
Min.	1.8	1.9	2.2	0.6	0.8	1.9	2.2	1.0	0.6	0.5	0.2	0.5	0.6	0.7	0.9	1.3	1.1	2.5	1.1	2.1	1.0	0.9	1.7	1.6		0.2	
Avg.	9.8	10.0	9.8	9.5	9.4	9.9	10.3	10.1	10.2	10.6	11.3	11.3	11.6	11.7	11.6	11.0	11.2	11.5	11.3	11.4	11.4	10.5	10.5	10.2			10.7

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Speed (RMYoung) (m/s)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	16.4	19.7	18.0	15.6	13.3	11.2	10.3	12.1	10.1	11.2	13.5	12.8	10.9	11.7	6.7	7.4	6.8	6.0	2.9	1.8	3.7	2.8	4.9	5.9	19.7	1.8	9.8	
2	5.2	4.8	4.5	3.9	3.1	2.5	4.0	3.7	4.2	2.0	1.5	2.1	1.2	1.6	4.5	5.9	4.0	2.5	1.2	0.8	2.7	5.5	6.1	3.5	6.1	0.8	3.4	
3	3.7	7.8	10.0	16.1	16.5	16.8	17.1	16.6	16.3	14.3	12.5	12.7	11.1	9.0	7.9	5.8	3.1	1.8	2.4	2.7	3.5	2.6	4.0	3.0	17.1	1.8	9.0	
4	4.7	4.3	4.3	3.9	3.8	4.2	5.3	6.5	8.1	8.3	8.4	5.6	5.9	7.2	7.6	9.3	9.7	10.9	12.6	14.2	13.5	12.7	11.4	11.2	14.2	3.8	8.1	
5	9.1	9.2	8.9	9.3	8.1	9.4	9.9	11.3	10.3	10.0	10.2	10.7	12.9	15.4	16.8	17.8	17.2	18.4	19.6	20.3	21.7	22.6	22.7	25.4	25.4	8.1	14.5	
6	26.2	26.8	26.9	26.3	27.2	25.4	25.8	24.3	25.1	24.5	23.5	21.1	19.5	16.7	15.0	12.6	7.9	3.2	3.6	4.5	7.0	5.9	4.5	3.1	27.2	3.1	16.9	
7	3.9	3.2	3.1	3.5	3.5	3.4	3.6	3.5	2.4	2.1	3.8	8.5	12.2	14.0	14.0	18.5	21.6	22.0	21.0	21.1	20.6	20.3	19.4	16.5	22.0	2.1	11.1	
8	17.1	15.0	11.8	9.6	9.4	6.3	1.9	1.8	4.9	7.6	7.7	9.0	11.2	8.6	9.3	6.6	1.8	5.3	7.2	7.4	8.7	9.1	7.5	7.2	17.1	1.8	8.0	
9	4.9	2.8	2.7	3.5	4.3	5.3	5.5	6.4	5.6	7.5	11.3	14.1	14.0	15.1	15.4	15.5	14.5	15.5	16.5	17.7	21.4	23.0	21.5	18.3	23.0	2.7	11.8	
10	17.6	18.3	15.9	15.7	13.6	12.5	5.9	9.1	10.0	6.9	9.1	7.3	6.4	8.8	10.6	10.4	8.4	7.3	4.9	4.5	6.2	8.0	9.6	11.6	18.3	4.5	9.9	
11	13.5	14.0	15.7	15.0	13.2	12.0	8.8	7.0	6.0	4.2														15.7	4.2	10.9		
12																												
13																												
14	3.8	2.5	1.9	2.6	2.7	2.3	4.1	5.5	5.6										6.5	5.8	6.8	5.6	5.4	4.7	6.8	4.7	5.8	
15	12.3	10.9	11.9	12.8	13.6	15.6	15.0	14.7	13.4	13.1	14.1	16.0	16.4	17.5	18.0	19.5	18.8	17.6	18.2	17.3	18.5	17.2	21.6	21.0	21.6	10.9	16.0	
16	18.8	19.6	20.2	18.9	19.8	20.8	20.3	18.6	18.0	18.8	19.5	20.0	18.4	18.1	21.4	19.7	18.6	20.0	18.5	19.7	20.6	22.9	24.2	24.5	24.5	18.0	20.0	
17	20.5	23.7	24.5	24.7	24.4	22.0	22.5	20.7	21.4	19.4	19.0	16.8	19.3	19.0	18.4	16.1	16.7	14.9	13.3	11.1	8.1	7.1	7.0	6.2	24.7	6.2	17.4	
18	6.9	6.4	5.5	6.7	6.5	7.3	6.9	7.0	6.7	7.6	7.5	6.3	6.1	6.0	6.5	7.7	7.7	7.4	6.3	7.0	8.5	7.6	7.2	7.2	8.5	5.5	6.9	
19	8.3	9.7	10.5	12.2	11.3	11.9	10.9	9.0	11.7	12.5	9.5	8.0	7.0	9.1	9.9	9.6	8.6	8.0	7.4	9.4	8.0	7.1	5.8	5.5	5.6	12.5	5.1	9.2
20	5.5	3.2	2.1	2.3	3.7	4.0	5.4	6.7	8.1	10.1	13.1	13.7	16.0	15.0	12.5	8.6	8.1	8.6	9.4	8.0	7.1	5.8	5.5	5.4	16.0	2.1	7.8	
21	5.4	9.9	12.1	13.4	14.7	14.3	13.1	11.5	11.0	8.0	8.8	6.9	7.9	7.9	8.8	5.0	7.0	7.9	10.4	12.5	13.1	8.0	5.8	12.1	14.7	5.0	9.8	
22	14.5	15.1	15.4	14.2	14.8	16.5	16.5	15.5	14.9	15.3	15.7	15.2	15.0	14.8	15.5	13.4	13.4	13.3	12.9	12.9	12.1	9.4	9.7	10.5	16.5	9.4	14.0	
23	12.8	13.3	11.3	11.8	10.9	4.4	4.0	4.4	5.8	5.7	6.9	6.7	7.1	9.0	8.3	5.6	5.1	3.7	1.5	0.7	2.6	1.9	1.7	1.2	13.3	0.7	6.1	
24	0.7	1.1	1.0	2.0	2.7	5.2	5.7	10.8	12.2	13.2	14.2	14.5	17.4	17.3	19.0	20.0	19.1	19.2	19.4	18.1	18.3	17.5	17.8	19.4	20.0	0.7	12.7	
25	19.8	19.0	18.5	18.3	18.2	17.4	15.8	14.6	14.0	14.6	13.9	15.1	16.7	17.1	16.9	16.5	15.3	14.3	13.5	13.1	11.7	12.3	11.0	9.4	19.8	9.4	15.3	
26	9.5	7.1	5.6	4.3	5.2	3.3	2.0	5.5	4.1	7.8	7.9	5.6	8.6	8.0	5.7	6.1	10.8	15.4	19.0	18.6	18.0	20.2	19.2	17.8	20.2	2.0	9.8	
27	20.6	22.6	22.1	22.0	23.5	20.8	20.3	20.9	17.8	15.1	14.2	12.2	11.8	11.3	10.5	8.6	7.6	7.4	6.7	3.0	2.7	6.0	5.9	6.8	23.5	2.7	13.3	
28	10.1	14.1	14.8	12.3	7.7	13.4	15.4	11.9	12.8	9.6	6.6	6.4	5.5	5.4	5.6	6.3	5.6	6.0	6.3	7.7	10.7	11.6	14.4	15.5	15.5	5.4	9.8	
29	16.1	15.6	15.8	16.0	16.1	14.2	14.2	14.2	14.7	12.1	12.5	13.1	11.3	10.4	12.3	9.5	10.4	12.4	11.9	10.2	9.6	9.3	8.5	8.6	16.1	8.5	12.5	
30	8.2	6.4	4.9	4.9	5.5	3.7	3.4	3.6	4.3	4.3	2.7	2.4	2.9	4.0	2.8	2.2	2.6	3.9	5.7	6.4	6.9	6.1	6.8	6.0	8.2	2.2	4.6	
31	4.3	4.2	3.9	3.6	3.8	3.8	3.4	4.1	4.9	5.5	5.5	5.1	5.4	4.6	4.2	5.3	5.8	5.9	5.7	5.8	6.2	5.0	4.9	5.3	6.2	3.4	4.9	
Max.	26.2	26.8	26.9	26.3	27.2	25.4	25.8	24.3	25.1	24.5	23.5	21.1	19.5	19.0	21.4	20.0	21.6	22.0	21.0	21.1	21.7	23.0	24.2	25.4	27.2			
Min.	0.7	1.1	1.0	2.0	2.7	2.3	1.9	1.8	2.4	2.0	1.5	2.1	1.2	1.6	2.8	2.2	1.8	1.8	1.2	0.7	2.6	1.9	1.7	1.2		0.7		
Avg.	11.1	11.4	11.2	11.1	10.7	10.2	10.4	10.5	10.4	10.9	10.7	11.0	11.2	11.3	10.7	10.7	10.2	10.3	10.2	10.1	10.7	10.5	10.5	10.5			10.7	

Total Hours in Month 744

Hours Data Available 673

Data Recovery

90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	303.2	302.0	303.5	312.7	309.6	303.6	304.2	305.0	303.5	299.7	300.4	297.1	302.3	307.0	305.3	304.5	304.6	307.4	303.8	308.2	315.3	306.3	306.8	304.6
2	309.7	317.9	318.2	304.5	322.9	319.0	311.3	303.2	306.4	302.0	303.9	310.2	314.1	318.6	302.5	306.6	308.4	312.8	317.5	313.8	311.9	306.2	308.2	311.9
3	304.7	303.0	302.4	300.0	302.3	306.2	307.1	315.6	313.1	306.8	311.1	314.0	311.0	316.8	309.0	313.7	316.3	303.8	302.9	297.8	300.7	312.3	320.1	316.7
4	311.7	306.2	303.5	309.8	310.1	311.9	303.8	313.0	309.5	304.5	308.9	311.2	306.5	304.0	308.3	312.2	303.0	6.5	98.8	81.0	115.8	112.0	123.2	173.6
5	188.0	125.1	313.5	309.5	304.3	311.0	316.4	305.0	301.2	312.0	306.1	303.9	314.4	310.1	303.6	308.4	302.8	302.2	298.3	300.8	313.1	311.3	316.4	308.6
6	303.5	296.9	310.8	312.2	303.8	307.8	303.7	319.9	312.1	314.2	320.1	313.8	305.4	305.1	306.0	302.0	307.8	311.0	308.0	308.1	309.8	302.6	312.0	308.2
7	310.2	316.7	315.6	310.2	318.5	315.8	309.7	311.3	300.8	311.9	311.5	313.1	322.9	302.4	306.5	299.5	312.6	306.9	310.2	313.3	305.5	312.3	312.1	302.6
8	304.5	300.6	306.2	313.6	316.8	312.9	313.8	316.1	315.3	308.6	304.5	316.8	315.2	313.5	322.4	310.3	317.1	322.4	307.6	308.1	307.8	304.7	305.9	306.2
9	303.6	305.3	299.8	296.7	309.3	311.9	305.7	311.7	312.0	312.0	310.0	319.9	96.5	117.2	107.3	137.1	164.7	155.8	157.3	152.6	153.6	156.4	151.5	158.1
10	160.5	148.2	155.5	163.8	147.1	146.6	143.9	140.9	124.9	108.5	106.2	126.3	122.1	125.0	126.0	123.4	124.0	125.3	122.3	124.2	124.5	123.9	126.9	129.1
11	123.3	123.9	123.5	120.2	119.9	116.6	115.6	113.7	113.4	117.3	119.3	117.7	117.8	118.3	117.2	113.0	115.1	116.1	118.5	117.7	114.9	112.8	113.0	111.6
12	108.6	113.7	114.1	114.2	113.2	114.4	114.7	114.5	120.0	122.6	122.1	120.4	118.1	120.2	119.0	118.4	115.2	115.8	114.8	118.0	118.4	120.8	120.6	161.0
13	242.9	232.6	232.1	236.4	231.3	218.1	204.5	208.7	195.8	192.5	202.0	164.6	179.3	187.2	169.8	129.3	77.1	57.5	357.3	351.5	328.6	323.6	311.4	305.9
14	302.9	301.1	306.4	318.2	318.5	318.2	317.5	315.7	322.9	332.5	315.3	314.6	332.1	332.7	330.9	325.6	323.2	324.6	318.5	319.1	316.4	317.4	313.7	306.6
15	308.4	308.8	307.4	308.3	304.7	303.1	304.9	299.0	300.7	309.3	309.9	309.5	314.4	306.0	305.1	307.5	310.5	307.9	310.1	313.0	311.1	313.9	306.9	304.8
16	304.5	297.7	163.4	102.0	88.9	108.4	121.8	116.2	117.1	104.5	112.4	112.8	111.1	112.3	111.1	112.5	111.5	112.0	113.6	115.7	117.2	119.2	121.3	121.8
17	123.0	125.7	131.2	145.7	146.1	144.0	128.2	124.0	132.0	136.0	118.2	131.2	131.7											
18	120.4	127.0	139.1	137.7	108.8	100.6	102.9	100.7	96.3	105.3	131.4	291.6	307.2	306.9	285.8	304.3	302.2	305.4	303.1	298.3	310.5	306.7	303.8	300.0
19	304.7	303.8	305.2	315.2	292.1	309.5	329.9	42.4	153.5	195.3	99.2	111.0	105.3	90.5	110.3	111.7	120.1	116.4	104.3	124.9	116.3	116.4	118.6	111.0
20	106.6	116.2	113.0	121.7	123.1	123.0	119.2	118.3	115.4	116.3	111.0	97.9	102.0	103.7	48.9	36.9	0.9	8.5	347.7	313.1	322.0	322.4	327.8	308.4
21	310.3	315.4	320.3	314.6	318.4	307.8	325.3	293.4	305.7	296.1	297.6	288.6	278.9	279.8	248.0	228.3	221.9	254.2	258.9	259.6	258.7	292.8	246.5	252.6
22	248.4	235.5	221.2	212.9	159.4	151.7	129.1	126.1	125.3	109.1	107.6	101.1	105.8	29.6	318.0	308.3	311.1	308.3	306.9	310.1	312.3	304.3	304.6	306.6
23	311.1	306.7	330.5	303.3	307.9	326.0	322.7	310.7	316.9	320.1	308.4	305.7	299.8	302.1	300.3	301.8	301.7	305.5	313.7	311.2	317.6	320.5	317.4	319.1
24	320.0	313.3	311.0	305.6	306.2	307.3	302.9	309.2	314.7	304.3	311.3	315.5	323.7	318.2	305.0	300.3	313.1	320.2	317.9	309.3	298.7	302.9	308.3	305.8
25	299.8	297.7	180.1	125.0	115.0	113.9	107.9	101.6	109.8	112.7	111.7	114.5	114.4	114.9	112.8	109.1	106.6	110.1	110.7	109.6	111.6	111.9	110.1	112.7
26	116.8	115.8	116.1	114.5	114.1	113.5	115.2	114.6	115.0	115.8	116.1	121.4	126.7	128.0	130.6	133.0	137.6	134.8	129.0	135.4	135.2	133.8	133.0	126.8
27	127.0	126.8	124.8	118.6	116.3	115.9	119.2	119.9	117.3	122.3	114.9	115.9	119.0	114.7	109.0	114.9	115.6	115.0	119.1	114.6	114.8	114.1	109.7	113.3
28	115.0	115.2	116.4	116.3	115.7	112.5	116.5	114.0	116.5	121.9	123.0	133.6	141.1	156.3	136.9	130.6	128.5	130.2	131.5	127.9	127.9	132.5	124.0	125.1
29	123.6	122.3	115.8	109.7	105.7	113.0	113.4	122.0	120.6	120.5	116.1	120.3	118.1	116.1	113.7	117.1	119.2	119.8	117.2	117.5	114.7	115.0	116.0	116.9
30	123.2	118.3	117.6	119.9	121.6	115.8	114.7	112.8	113.8	112.1	112.9	116.6	121.4	121.4	123.0	115.9	124.4	135.3	134.9	130.7	125.6	133.9	136.5	137.8
31	139.5	132.6	133.8	139.4	140.3	144.2	142.7	139.2	148.3	145.9	149.7	154.1	149.7	139.2	133.1	140.0	121.4	132.3	131.4	127.8	131.2	133.9	125.9	128.7

Total Hours in Month 744

Hours Data Available 737

Data Recovery 99.1%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	140.3	142.7	128.9	130.8	127.0	123.1	130.4	131.1	129.4	124.2	144.7	156.2	142.0	123.7	127.7	118.7	117.0	111.2	114.2	110.0	119.2	122.5	125.7	121.1
2	119.4	114.9	119.9	121.8	121.1	119.0	123.9	123.0	121.2	123.0	122.7	120.2	122.3	123.8	123.6	124.0	122.0	121.5	118.0	116.1	119.9	120.6	123.4	122.8
3	124.4	123.7	123.1	124.5	124.5	125.3	122.8	125.6	136.0	140.2	146.2	146.1	139.0	130.9	141.8	172.9	198.4	161.8	220.8	311.8	310.6	317.4	312.4	307.4
4	308.5	299.1	310.2	312.8	304.4	308.8	318.1	317.0	304.8	314.9	318.1	308.5	312.9	304.5	226.4	130.4	147.6	349.1	314.4	288.5	144.8	126.4	115.5	117.3
5	125.8	115.1	140.3	150.0	133.2	129.7	136.3	125.6	136.3	128.7	125.8	117.8	135.9	143.6	147.0	139.5	127.2	124.8	128.5	134.1	132.4	138.9	142.2	136.1
6	136.1	135.3	136.3	135.3	129.5	129.7	128.7	126.6	125.3	126.7	130.3	132.0	128.4	128.6	128.1	126.1		114.2	108.3	127.5	138.7	93.8	86.2	
7	93.7	104.0	107.9	104.3	125.8	141.1	218.8	159.6	166.4	158.5	289.3	298.2	170.0	137.6	144.4	303.8	313.3	35.0	109.1	87.6	92.8	83.8	108.8	115.9
8	112.3	122.1	132.1	137.6	123.0	153.1	153.5	153.2	159.3	159.6	158.3	158.6	156.3	162.3	159.3	163.8	162.8	157.1	157.4	167.2	164.5	158.9	157.4	151.8
9	141.8	145.8	151.7	153.6	165.2	159.8	164.4	155.0	145.7	154.3	146.9	137.7	132.7	136.7	146.9	150.6	154.4	146.8	131.6	135.2	165.1	357.3	317.7	316.0
10	311.3	357.3	33.0	32.1	337.0	296.5	324.7	324.6	334.2	323.5	321.2	318.8	315.0	313.4	319.6	318.8	321.3	317.4	322.7	329.1	328.0	309.7	317.9	318.2
11	315.1	136.7	130.9	139.1	130.3	129.4	117.2	120.9	143.5	137.7	127.0	123.7	131.3	127.8	122.9	125.3	124.0	122.8	121.8	124.6	121.6	113.0	115.4	118.7
12	120.3	118.2	114.5	122.2	121.8	119.5	120.1	117.6	111.7	116.2	114.9	113.9	116.9	116.6	116.7	119.1	117.9	110.9	109.2	90.5	84.5	88.2	82.3	100.4
13	67.0	52.6	57.2	58.5	39.3	35.1	51.1	59.1	55.7	59.4	69.6	79.2	97.6	79.0	81.9	99.3	112.7	128.1	129.3	125.0	120.5	122.6	126.3	127.6
14	119.6	120.7	117.6	117.4	110.7	110.6	116.6	117.7	121.7	111.3	107.3	122.0	124.7	123.2	126.9	125.1	128.7	138.0	139.6	118.2	100.6	114.1	87.8	0.8
15	341.4	325.3	350.0	176.0	308.6	302.3	314.2	308.2	314.7	318.0	297.0	320.9	308.2	314.7	303.7	314.8	307.8	314.3	316.3	310.0	307.1	309.8	321.0	305.1
16	299.6	72.8	337.7	282.8	170.5	155.9	154.0	112.3	113.5	115.2	137.5	158.1	160.5	175.1	172.1	176.5	151.3	155.5	237.5	89.1	140.2	125.4	120.8	162.2
17	144.7	169.3	166.0	139.7	154.1	165.9	151.4	145.0	147.8	178.1	170.4	52.3	117.8	102.6	113.9	113.6	119.3	153.0	148.2	151.8	123.7	139.7	123.0	124.9
18	140.6	133.6	116.2	123.8	106.8	101.8	100.9	116.6	119.8	132.5	128.0	123.1	121.5	145.6	157.9	126.1	74.8	160.8	37.9	337.3	322.8	318.0	310.4	309.3
19	311.9	310.4	301.8	313.5	321.3	313.0	318.2	310.0	320.8	316.7	313.6	310.0	306.2	314.5	316.5	320.9	325.5	323.6	327.7	323.1	319.3	326.2	325.3	328.9
20	327.8	323.8	309.0	304.2	307.5	327.9	332.2	343.0	335.7	337.0	331.3	325.3	324.7	321.5	327.6	329.3	328.4	321.0	318.6	312.7	315.0	316.6	318.6	308.4
21	314.6	316.6	329.8	328.7	330.3	332.3	332.3	329.3	321.8	319.2	325.4	325.1	318.7	319.1	314.5	317.6	326.2	319.4	321.0	315.2	320.1	316.6	311.2	312.5
22	323.0	317.0	307.4	309.9	327.7	338.1	316.2	313.8	312.1	307.3	306.6	311.0	329.2	320.0	319.3	303.4	294.2	298.8	315.0	312.9	309.6	314.2	313.3	314.1
23	312.6	318.2	329.2	312.0	309.5	312.6	309.1	312.2	314.3	312.9	316.8	306.5	308.7	315.1	317.9	314.2	299.3	301.5	301.4	306.4	303.2	309.8	317.4	312.0
24	313.0	308.1	306.2	310.8	305.2	307.4	317.1	314.5	311.7	315.1	317.0	320.0	330.8	329.9	330.1	332.0	329.4	328.4	319.7	318.3	315.2	320.9	329.9	334.0
25	337.0	344.2	336.8	329.4	326.5	322.2	321.5	306.6	309.8	315.0	325.8	323.7	311.8	312.4	317.1	306.6	327.9	319.5	326.2	319.1	317.2	318.5	315.8	309.5
26	302.0	307.4	307.7	305.7	310.4	316.8	329.3	320.1	311.9	319.6	321.9	327.2	331.0	311.2	313.1	309.0	315.3	317.4	322.0	323.2	312.2	315.0	320.5	317.5
27	318.7	326.4	329.1	322.4	328.7	325.9	334.8	326.7	320.0	312.9	318.3	330.4	304.4	305.0	318.6	311.5	311.9	308.9	318.5	323.2	319.8	315.4	315.8	318.1
28	319.3	308.7	308.4	310.1	316.5	312.8	315.1	312.4	330.0	313.5	319.9	318.2	315.7	300.4	309.5	326.4	319.6	328.8	328.8	311.6	322.2	319.1	316.0	308.6

Total Hours in Month 672

Hours Data Available 670

Data Recovery 99.7%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	319.7	306.2	298.7	299.9	308.1	303.9	306.0	302.3	309.8	305.1	307.2	316.6	312.4	317.8	322.6	327.4	328.9	335.6	334.9	334.2	334.6	333.4	325.5	321.7
2	321.2	326.9	323.8	323.1	323.2	324.9	324.8	325.6	324.3	325.5	315.5	317.9	322.6	318.6	326.2	331.6	327.3	325.7	330.6	329.2	327.1	327.4	330.3	332.2
3	327.4	325.0	325.6	324.4	317.3	321.9	321.2	324.2	330.3	335.0	338.6	307.0	318.8	307.4	324.2	333.5	325.6	320.2	331.7	308.0	298.3	307.3	320.2	321.4
4	325.0	337.3	340.1	340.0	331.6	328.8	322.7	319.3	313.3	312.2	313.6	315.3	326.3	325.9	332.6	332.7	335.0	335.3	340.1	336.9	330.7	323.2	319.2	320.3
5	318.3	315.8	320.2	331.9	336.7	338.2	338.2	331.3	327.5	332.2	336.1	337.8	341.2	333.3	333.5	333.5	330.4	336.3	334.1	336.0	333.8	329.8	333.0	333.1
6	327.9	328.2	329.7	332.5	335.8	337.8	335.1	337.4	332.2	331.2	338.2	336.6	332.3	334.0	328.2	322.5	322.2	323.6	321.5	320.2	320.8	322.2	323.0	315.2
7	319.2	322.5	319.1	325.5	326.8	315.3	315.2	312.9	314.3	323.4	324.2	334.8	332.7	332.4	334.5	335.7	330.2	329.3	329.5	329.1	327.8	328.2	326.4	325.5
8	327.7	328.3	330.1	327.0	330.9	332.3	332.0	331.2	331.0	329.7	328.8	331.1	326.1	331.3	337.2	328.0	326.4	328.2	328.0	326.7	328.2	325.2	327.4	325.5
9	325.7	326.6	322.8	323.8	323.0	323.2	324.8	321.3	321.0	322.4	329.7	333.5	332.6	334.0	331.0	328.4	331.1	330.4	331.8	328.9	313.1	309.2	302.4	302.7
10	311.4	309.5	308.5	308.1	303.1	306.8	314.0	317.6	337.4	337.4	327.9	326.7	328.7	335.0	314.9	332.9	333.0	328.6	337.5	331.7	315.1	314.0	317.3	303.5
11	307.0	327.5	318.9	315.0	316.1	319.0	316.4	320.7	325.1	319.5	322.4	332.2	335.9	340.5	339.8	337.3	333.5	337.9	338.9	328.4	326.6	328.5	320.4	319.0
12	316.4	315.3	315.4	312.3	313.0	325.6	313.5	301.2	307.2	318.5	326.8	319.5	327.8	332.6	329.0	329.7	322.6	330.1	325.5	323.6	325.8	322.0	327.0	334.7
13	324.8	323.0	325.5	328.2	326.4	330.1	317.9	327.3	329.1	330.0	321.9	326.0	324.9	328.9	325.9	330.0	326.3	327.2	326.3	323.0	319.4	318.2	309.4	310.4
14	312.6	317.5	317.8	320.8	315.6	318.0	315.8	315.9	314.6	315.6	321.0	321.9	325.0	325.5	330.5	336.7	337.0	327.8	326.1	321.5	324.6	335.8	332.3	330.1
15	337.2	328.7	334.1	335.7	334.0	335.8	328.4	308.2	303.0	307.9	315.3	330.5	330.8	324.1	334.6	333.3	327.7	329.2	326.3	322.2	318.8	323.2	324.8	317.8
16	315.0	309.4	304.2	304.4	301.0	301.7	303.2	304.7	318.3	318.7	329.7	317.6	329.7	323.8	319.8	319.7	319.7	323.0	342.6	340.9	326.8	309.1	307.8	303.2
17	301.5	299.4	303.4	300.1	307.0	307.0	308.4	298.1	312.4	309.2	315.3	314.8	306.4	322.3	310.4	302.8	315.0	319.3	316.2	303.8	309.8	310.2	311.1	297.7
18	305.3	303.4	281.6	296.7	312.7	304.8	303.1	301.0	274.9	303.3	94.2	94.5	312.9	312.3	282.7	265.8	271.9	273.0	294.5	297.7	299.1	298.9	302.2	305.4
19	303.2	299.8	303.1	308.6	305.9	305.4	305.5	307.5	304.2	311.4	308.7	310.7	311.5	318.2	317.3	307.2	311.7	284.0	299.3	300.1	314.3	314.0	305.8	
20	114.7	129.0	129.0	127.2	121.8	126.3	138.9	135.9	134.9	124.4	124.7	113.2	109.0	111.2	107.2	103.6	104.9	103.7	96.7	101.4	102.9	104.0	108.2	103.9
21	100.6	91.9	92.4	113.9	121.0	156.5	149.6	139.0	148.7	151.9	200.3	218.0	238.0	235.8	230.3	229.6	265.3	264.0	256.8	289.0	308.9	298.3	327.3	325.7
22	309.9	314.4	306.9	312.5	313.0	315.5	311.1	302.7	303.3	312.4	309.2	306.5	312.2	309.6	319.8	325.6	325.4	330.0	318.1	306.6	300.8	302.4	309.2	315.5
23	317.9	308.2	307.7	308.8	313.2	307.0	309.2	321.0	317.2	319.2	318.5	309.0	311.4	306.8	307.0	315.4	312.3	322.8	321.1	315.0	311.5	307.6	308.8	313.2
24	311.7	320.5	317.9	319.3	302.5	314.5	309.6	300.9	300.0	306.0	307.3	300.6	294.6	303.1	307.0	305.2	306.7	299.2	292.4	296.3	301.0	301.8	306.7	313.5
25	124.1	122.8	130.4	150.4	102.4	121.2	123.5	113.3	113.8	125.5	120.1	127.8	118.8	119.7	129.1	204.3	207.9	156.9	129.6	125.4	104.7	105.3	114.1	113.6
26	124.0	104.2	88.3	91.7	114.0	115.4	122.1	137.4	165.7	199.6	206.8	214.0	197.9	208.1	218.4	227.0	251.8	268.9	291.8	304.1	307.4	310.5	311.5	319.4
27	316.0	309.6	315.7	317.9	321.3	318.3	321.6	319.0	323.6	322.0	326.6	326.2	325.9	318.9	319.1	313.9	317.1	310.6	310.0	316.9	321.8	332.0	332.5	340.1
28	342.7	325.3	319.8	319.1	310.5	310.9	307.1	305.8	311.5	318.2	311.7	320.3	320.7	318.9	322.4	317.3	316.0	314.9	317.4	320.0	312.8	309.8	309.7	311.5
29	313.4	307.5	310.8	308.7	316.8	319.1	312.9	308.2	311.4	325.9	329.2	314.9	307.5	308.3	309.6	303.7	312.1	310.3	307.4	310.1	304.6	313.2	317.1	311.4
30	313.3	314.1	319.4	310.4	314.3	316.7	311.9	311.2	311.6	306.9	297.8	310.4	309.6	307.0	305.9	298.9	302.0	306.1	311.5	302.6	306.7	359.9	122.0	127.3
31	123.1	113.4	118.4	116.1	129.9	140.0	166.0	169.6	155.3	162.8	155.4	142.2	92.2	309.9	316.3	300.3	298.8	306.5	300.2	300.0	303.7	309.1	315.5	319.9

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	315.5	313.6	311.5	308.0	315.1	307.6	306.0	308.9	309.0	315.5	314.6	320.1	312.4	308.6	307.7	294.0	328.1	37.0	122.1	110.0	144.0	121.7	138.9	158.3
2	159.6	151.9	148.2	153.9	146.3	138.3	140.7	131.3	125.3	120.4	120.6	121.5	123.3	122.8	125.9	126.4	126.7	127.8	125.8	127.9	129.1	123.4	119.1	119.5
3	120.9	118.3	120.4	116.4	118.8	121.0	121.5	122.3	125.5	126.9	120.4	117.6	118.9	118.7	122.7	119.1	120.1	122.3	123.8	124.0	113.2	118.2	121.4	119.0
4	118.2	116.3	121.1	107.9	90.8	95.0	98.2	98.1	101.4	110.0	104.8	116.9	116.4	115.9	122.0	123.0	117.1	116.5	101.6	96.5	93.5	97.3	105.0	125.5
5	114.2	43.9	41.9	89.1	43.7	71.7	81.0	59.9	53.9	36.7	49.9	57.3	62.8	58.2	56.1	54.2	56.3	109.5	108.0	110.4	116.8	114.8	111.2	111.9
6	115.9	117.1	118.1	115.4	119.3	115.6	116.6	104.1	105.3	92.1	52.7	52.7	52.5	52.6	54.0	41.7	37.0	26.9	31.8	38.4	359.2	356.7	10.5	44.3
7	54.8	51.6	133.2	179.3	157.6	129.4	119.3	127.0	120.9	117.5	120.3	119.9	120.6	122.2	120.4	117.7	117.8	122.0	125.0	110.7	118.2	107.3	91.4	88.2
8	55.5	55.0	51.4	47.3	46.4	42.3	38.9	33.6	31.3	31.3	40.1	37.8	51.7	51.9	52.9	55.0	60.5	93.4	147.9	94.9	129.9	105.7	103.5	132.3
9	123.0	111.2	125.5	111.1	95.3	98.5	68.1	94.9	85.3	110.2	120.7	113.0	106.8	115.7	120.0	121.3	123.8	121.9	125.2	124.1	123.4	124.1	122.6	126.1
10	133.6	130.8	134.1	135.5	143.5	152.4	140.6	131.4	140.3	140.0	125.1	130.5	131.8	143.6	143.2	138.1	133.8	128.6	127.2	132.2	134.0	139.1	142.1	143.2
11	148.5	155.8	145.9	143.0	129.0	130.3	126.9	131.7	129.6	126.4	139.4	123.2	120.2	132.8	136.0	138.9	130.8	133.0	139.0	140.0	135.2	117.5	103.6	114.9
12	109.8	103.3	95.6	43.2	356.6	336.7	318.2	325.4	324.8	311.6	305.9	298.9	312.0	280.5	262.5	260.4	285.5	289.0	293.0	301.2	303.2	300.7	314.3	310.4
13	310.9	314.4	314.1	310.5	310.5	315.9	308.2	312.0	313.3	312.6	306.9	332.4	331.0	323.6	328.1	341.0	341.3	309.1	310.9	292.3	340.6	334.3	4.8	315.1
14	315.5	302.4	300.4	306.1	322.3	355.5	101.9	94.0	126.7	136.0	120.5	140.3	135.9	138.6	135.7	139.4	142.5	146.1	141.7	131.9	130.8	130.7	115.6	110.7
15	115.1	105.6	114.8	113.3	111.6	112.4	110.5	112.9	109.8	107.6	107.2	107.4	105.7	104.8	109.8	114.3	134.6	176.9	233.4	278.5	295.9	306.6	278.9	299.1
16	296.5	295.9	303.2	308.0	303.4	307.4	310.8	314.3	312.3	309.9	299.7	307.4	265.6	262.7	232.5	228.4	233.6	224.3	221.3	223.2	210.9	186.6	157.9	136.2
17	142.9	135.5	141.8	122.3	132.3	108.9	119.3	117.2	121.3	121.6	118.4	118.9	113.9	114.0	113.6	113.8	113.9	114.8	115.3	111.9	112.8	111.5	113.5	115.0
18	114.3	115.8	114.6	116.7	115.1	115.1	116.8	116.8	117.5	115.9	115.1	115.6	120.5	123.4	123.4	125.0	128.0	161.5	171.6	171.9	153.2	122.8	334.6	330.9
19	333.4	47.9	124.1	133.6	138.0	117.5	118.2	124.1	125.3	119.9	119.7	121.8	122.9	120.3	122.8	124.8	125.7	125.6	123.4	126.2	115.8	114.0	113.7	110.9
20	116.5	118.3	117.9	116.0	114.8	115.7	88.8	96.2	101.2	98.6	95.4	110.1	113.2	112.7	116.3	118.0	118.5	116.5	120.3	120.6	127.4	131.0	131.2	116.6
21	113.0	108.9	108.5	117.5	111.5	109.2	104.6	112.5	116.7	103.9	121.8	125.5	119.8	115.5	111.2	118.8	117.0	122.4	123.3	126.1	121.6	124.5	118.6	113.4
22	116.4	112.2	112.9	109.9	105.7	112.3	104.7	104.4	117.9	108.7	114.4	109.9	109.7	98.8	87.6	95.5	88.6	92.4	81.5	77.1	73.6	73.0	70.9	93.8
23	98.9	91.1	91.0	90.7	76.6	58.3	59.6	76.6	66.7	59.7	57.7	50.7	63.0	136.7	150.6	306.8	167.9	138.1	142.1	135.9	115.9	82.8	139.0	116.3
24	114.0	118.3	113.0	96.7	110.2	106.6	119.5	121.1	112.6	106.5	108.2	109.2	114.3	84.1	96.2	221.0	163.3	176.2	174.9	162.8	161.5	156.5	118.1	98.5
25	112.8	102.1	90.9	101.0	109.0	113.3	105.9	99.9	97.4	100.2	105.6	102.9	113.6	108.9	120.2	122.8	126.5	127.6	124.9	132.0	117.4	306.1	46.0	99.2
26	80.2	72.0	68.5	73.0	76.4	50.7	44.6	357.2	330.9	328.8	340.4	344.4	339.3	332.3	355.4	344.7	346.1	335.0	334.3	327.4	320.9	305.2	302.1	304.0
27	308.8	310.5	301.8	220.1	170.9	176.2	183.1	163.2	156.9	163.6	152.9	140.5	142.5	149.8	184.1	184.0	181.3	187.7	220.0	229.3	228.1	203.5	203.7	209.9
28	224.0	172.1	204.2	186.4	130.2	137.3	149.7	162.7	151.6	124.1	130.9	120.4	124.1	138.7	147.2	139.8	136.3	135.5	145.4	134.2	138.0	136.3	143.0	154.2
29	150.8	137.5	127.0	118.3	119.1	121.7	123.5	110.7	103.5	106.7	113.8	120.4	113.1	107.4	110.7	109.5	109.8	117.0	125.0	129.1	128.0	106.4	148.3	175.6
30	165.4	164.4	161.6	159.1	121.7	44.5	349.8	341.8	316.3	341.5	49.9	56.7	59.0	49.4	51.0	55.8	53.8	134.8	176.9	197.6	209.8	211.7	217.9	250.9

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	314.3	304.9	192.6	143.6	295.3	150.7	195.8	129.1	151.0	140.6	157.6	228.5	268.5	349.4			152.0	138.7	149.0	169.4	312.9	317.0	225.5	
2	200.7	221.1	181.0	243.4	91.6	283.9	303.2	306.5	319.5	304.3	323.3	180.8	181.0	130.2	99.4	124.9	138.4	137.0	128.8	131.4	131.0	129.4	131.2	135.2
3	119.1	133.5	125.0	128.0	147.1	156.2	177.5	196.8	227.4	312.0	327.5	346.4	348.4	332.1	271.2	260.5	271.7	324.3	292.3	254.3	239.7	271.3	243.8	296.7
4	310.6	315.2	292.6	304.8	312.7	319.4	315.3	267.6	325.5	32.7	299.8	268.4	264.9	256.0	226.2	235.2	237.2	259.8	287.4	87.2	143.8	143.3	264.0	277.1
5	293.0	316.5	317.8	315.8	313.5	320.5	315.3	320.3	304.4	311.6	313.7	309.8	306.3	307.7	289.9	283.8	304.5	293.8	288.0	289.0	290.6	278.8	273.2	278.9
6	292.2	295.2	305.0	302.8	306.1	303.6	310.4	309.6	293.1	300.6	309.6	299.7	300.1	309.9	314.7	307.4	309.3	310.9	313.9	311.4	306.6	307.0	305.1	304.1
7	304.5	304.0	306.4	304.2	307.4	315.8	319.4	317.1	314.2	301.2	313.4	302.7	314.9	300.3	314.1	303.1	329.0	331.1	322.9	247.0	249.0	256.1	268.3	271.7
8	267.8	105.9	96.7	308.3	124.5	138.2	122.6	124.7	126.0	210.7	331.2	358.6	267.5	278.7	218.3	216.4	223.0	227.8	230.5	217.5	215.5	197.6	200.0	185.3
9	222.7	141.3	132.7	238.4	70.0	106.7	104.8	106.4	104.3	111.5	111.3	128.0	154.3	138.3	142.1	136.3	139.9	145.5	147.9	147.5	144.4	171.8	176.6	172.4
10	163.8	174.6	183.6	194.7	187.0	161.2	160.8	168.9	138.3	146.6	133.7	137.7	156.7	181.2	188.9	167.3	159.6	154.3	156.0	148.4	142.2	142.5	146.3	126.4
11	126.4	113.8	125.5	116.5	125.6	124.4	117.0	111.2	112.4	121.2	124.4	124.4	129.3	124.1	132.7	131.8	134.5	135.9	143.0	145.4	141.7	145.3	147.9	144.2
12	151.2	159.1	156.0	146.6	151.2	136.1	130.9	133.1	129.2	122.5	122.1	124.8	127.1	139.3	140.4	134.3	133.4	128.5	134.3	135.9	132.5	145.4	152.3	134.4
13	130.7	123.5	126.0	132.2	129.5	124.1	118.6	119.0	117.0	121.7	111.0	119.3	119.5	120.3	117.2	113.2	112.1	108.4	104.3	101.7	101.2	96.4	85.6	76.9
14	46.0	80.9	84.8	74.7	58.2	54.3	14.0	15.7	14.9	36.2	62.6	71.9	72.2	107.6	151.4	130.7	134.9	127.6	129.5	130.0	125.8	126.9	134.0	125.3
15	111.0	115.8	116.0	131.1	122.3	113.1	101.5	102.7	96.3	102.3	101.1	121.0	123.8	125.5	148.5	144.5	156.1	149.4	186.7	180.5	305.4	291.9	308.5	311.9
16	318.9	335.0	330.3	316.0	320.1	326.0	328.6	324.9	327.8	334.9	337.0	40.2	26.6	69.2	84.3	137.1	146.9	160.9	161.1	170.6	171.5	170.3	156.6	157.0
17	158.8	161.4	165.0	171.5	169.3	166.5	168.8	155.1	149.9	154.3	142.5	126.9	131.1	140.6	153.6	154.9	155.0	152.7	150.3	145.6	136.5	145.4	146.0	143.1
18	149.7	148.2	138.1	137.1	143.5	148.3	145.2	147.4	153.8	147.6	147.5	140.1	137.3	130.5	164.8	158.7	154.8	200.2	205.0	225.6	217.3	252.3	262.1	300.5
19	278.5	290.3	292.3	298.0	311.1	312.6	299.3	303.7	301.1	328.6	284.9	263.5	264.9	245.3	223.3	242.7	230.9	235.4	236.7	241.9	237.3	232.3	265.1	260.6
20	294.0	250.5	250.6	194.6	82.0	240.7	278.5	251.1	34.5	343.6	10.5	350.1	340.9	295.3	272.9	235.4	221.9	216.7	215.6	223.4	231.2	232.5	232.8	232.4
21	246.9	285.7	261.5	185.5	154.8	220.8	300.1	303.9	307.8	328.3	1.4	147.1	127.0	147.0	138.0	119.3	127.1	133.1	134.2	127.5	132.1	133.0	122.1	126.2
22	132.3	133.2	125.7	125.3	132.5	109.7	98.5	107.9	96.3	94.0	109.9	131.8	130.8	127.0	144.0	152.4	135.6	131.5	135.6	153.8	170.3	153.4	151.4	149.0
23	132.8	140.3	28.6	80.2	93.0	81.6	101.9	97.1	107.9	114.7	130.2	122.7	127.4	129.4	123.8	127.3	133.6	123.5	119.6	122.6	126.1	128.7	129.9	132.0
24	125.1	132.0	128.5	128.9	128.2	127.9	134.2	133.4	129.7	126.6	125.1	123.9	141.0	143.4	147.3	139.1	147.0	148.1	137.8	128.9	127.1	101.4	103.0	124.4
25	121.8	118.9	117.0	100.1	105.1	113.6	108.4	114.7	106.5	105.9	111.2	152.8	162.7	156.8	153.2	157.7	162.7	159.5	143.5	141.2	136.0	226.8	292.4	304.8
26	306.1	324.3	332.8	184.4	176.9	164.9	151.5	126.1	151.0	158.3	154.4	136.5	158.0	161.2	162.4	153.2	149.3	143.8	134.6	139.2	129.8	131.7	128.7	136.2
27	142.7	151.6	151.5	159.9	158.9	156.0	151.6	132.5	148.6	136.8	133.4	136.8	137.3	141.6	139.5	140.7	142.0	144.6	141.9	144.7	145.2	150.2	163.4	153.2
28	161.4	160.4	148.9	132.6	145.9	137.6	127.6	132.6	119.7	125.0	120.2	129.8	131.5	132.6	122.4	136.4	154.1	149.0	141.9	145.8	147.0	144.5	150.4	161.0
29	174.9	183.3	218.5	292.3	310.7	306.5	307.7	313.7	330.5	359.4	6.0	0.6	46.5	51.2	3.6	33.8	164.8	160.5	175.4	167.2	159.5	175.2	177.5	197.6
30	186.1	231.5	159.9	295.0	307.2	323.2	312.7	300.2	318.8	320.8	86.6	107.2	119.1	125.6	122.3	125.7	141.5	150.5	147.7	138.9	141.3	143.9	147.0	121.0
31	147.6	129.5	114.1	102.1	102.2	111.2	112.7	110.3	129.7	137.7	133.9	125.8	127.5	119.4	92.0	67.7	91.5	96.3	112.7	120.9	141.9	129.2	118.3	115.3

Total Hours in Month 744 Hours Data Available 741 Data Recovery 99.6%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

Day	June 2007																							
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	110.1	101.8	104.0	125.3	91.4	93.9	98.3	131.7	133.6	116.6	115.3	125.4	131.2	123.6	115.7	132.7	138.0	137.9	138.6	120.7	124.0	124.6	128.6	121.1
2	113.4	112.8	121.9	136.9	135.1	139.0	130.8	123.7	120.7	128.0	134.7	126.5	122.7	126.7	113.2	132.7	139.2	142.7	143.5	141.9	141.1	137.0	138.5	163.9
3	194.6	192.7	111.0	107.2	130.5	153.2	163.8	176.8	133.1	122.9	125.5	119.8	117.2	125.9	132.6	66.2	147.1	145.7	45.4	302.5	167.9	245.2	306.2	311.6
4	313.6	320.7	331.7	328.9	315.3	315.2	314.9	324.0	330.7	334.5	326.7	349.5	352.2	351.5	346.2	18.6	178.7	241.7	174.2	174.3	165.5	159.1	168.5	165.2
5	157.7	155.9	152.9	149.4	151.0	150.5	142.2	106.9	117.8	120.2	128.2	130.7	125.1	122.4	118.8	118.6	116.7	115.8	121.8	120.9	118.8	118.8	121.9	127.6
6	126.9	144.9	133.6	127.0	127.8	136.3	108.3	111.3	92.4	52.1	47.0	81.4	114.0	162.5	167.3	164.1	167.4	181.1	194.7	181.5	180.3	182.1	177.4	176.2
7	178.6	155.4	115.9	327.3	340.5	47.1	63.9	82.6	74.6	96.1	79.2	83.3	90.5	108.9	101.0	122.5	118.9	120.2	118.9	116.1	111.9	115.6	131.5	114.5
8	108.1	111.8	104.0	112.9	117.4	115.4	124.1	121.8	125.4	133.0	135.2	124.7	97.7	102.8	118.5	125.9	120.3	115.4	123.7	124.7	126.3	131.0	142.6	148.6
9	125.8	141.8	147.3	165.5	172.5	205.5	280.0	312.5	324.8	341.0	332.0	4.8	1.6	349.6	6.1	355.6	4.3	85.1	27.4	343.6	341.7	321.3	310.9	309.0
10	310.5	309.0	315.5	316.2	320.7	317.1	307.3	307.4	313.4	323.0	327.0	326.6	323.9	323.7	324.1	319.9	320.6	318.0	317.2	319.8	327.1	91.4	103.9	118.8
11	145.9	136.8	158.7	170.6	194.4	191.3	149.4	139.3	126.6	127.0	155.2	158.0	154.6	154.6	160.6	162.1	158.2	153.9	154.5	143.8	145.5	147.6	148.9	150.8
12	158.7	158.4	160.7	161.8	151.6	143.5	155.3	138.2	147.9	149.9	145.3	147.4	155.9	159.9	156.1	165.3	163.0	154.6	156.6	165.8	160.4	173.8	168.0	185.8
13	198.5	204.3	251.9	262.9	281.1	324.3	317.7	318.5	331.0	323.7	329.5	313.9	333.2	268.5	284.8	287.5	306.9	246.5	217.8	270.1	271.4	269.2	285.0	293.7
14	287.0	286.5	300.3	310.1	296.3	302.3	308.8	308.8	301.1	310.8	333.3	329.5	359.4	320.7	299.9	260.1	262.7	205.7	262.9	277.4	275.0	268.9	279.1	300.4
15	311.1	311.0	323.2	316.7	323.7	319.6	328.7	323.8	322.8	329.5	336.1	340.4	345.7	350.9	342.3	331.0	341.4	323.2	319.1	329.1	324.9	325.3	324.2	309.1
16	310.6	307.5	317.6	320.8	320.9	319.6	322.0	315.0	324.4	318.7	307.5	305.6	298.9	294.5	291.1	293.7	292.1	283.3	274.0	259.5	238.4	233.0	237.0	252.9
17	253.0	248.3	226.3	225.4	229.7	231.6	242.0	236.5	259.7	277.5	310.1	322.5	339.9	310.4	339.8	348.9	328.9	346.1	351.6	342.1	319.6	337.5	305.1	304.5
18	302.8	324.2	303.2	292.6	309.5	311.1	311.9	319.3	327.6	315.5	323.4	355.7	332.6	305.1	12.1	234.3	140.2	216.5	172.4	171.0	213.3	146.1	266.3	305.5
19	306.7	311.7	317.6	320.2	307.4	309.5	310.5	320.5	326.7	333.4	332.0	341.7	336.6	341.7	344.1	338.5	339.3	344.7	334.9	325.1	333.7	329.9	327.3	317.3
20	313.0	321.5	319.7	317.3	313.9	310.8	312.4	311.3	320.5	327.3	324.1	327.0	331.1	334.4	333.4	337.4	326.3	322.6	335.6	324.6	312.3	306.0	307.0	299.8
21	307.6	319.3	316.9	310.3	301.1	309.8	304.7	307.7	310.7	311.9	315.0	313.5	294.0	301.2	301.0	300.4	294.9	293.3	289.3	285.4	259.3	244.4	252.0	246.0
22	215.2	98.0	113.8	359.5	141.1	151.5	190.4	203.9	195.9	169.9	170.8	175.0	169.6	164.2	159.5	178.6	167.9	161.1	171.4	158.4	157.0	156.5	153.4	156.4
23	145.4	136.5	135.2	127.3	127.1	126.1	123.6	120.9	117.3	115.1	118.4	120.3	121.9	120.9	120.3	116.5	112.5	114.3	113.6	114.4	112.5	114.7	115.0	115.5
24	114.1	116.8	117.8	121.3	123.3	124.6	120.2	127.0	122.3	116.2	114.1	112.4	123.1	124.0	121.8	125.8	136.9	131.0	126.7	127.3	123.6	124.5	126.4	125.9
25	129.0	134.7	132.2	125.8	123.6	128.9	133.3	134.1	136.5	141.3	131.2	126.5	123.1	124.1	128.6	122.5	123.6	130.4	129.3	128.4	127.4	131.9	132.5	132.2
26	131.1	145.0	150.8	148.6	128.1	130.8	137.6	140.6	141.5	128.2	136.3	149.6	150.6	144.1	125.9	140.1	151.5	153.1	223.1	229.1	269.2	267.3	268.6	271.6
27	288.4	292.0	302.3	305.7	312.4	320.7	317.6	307.3	311.3	333.9	2.6	122.8	148.1	151.7	152.0	156.7	159.4	168.7	163.0	176.7	198.5	225.5	241.0	137.1
28	61.7	310.0	303.5	267.0	261.4	183.5	273.1	263.6	101.7	119.4	144.1	123.4	143.0	147.3	146.2	135.1	153.6	158.2	170.8	124.2	125.9	129.2	132.3	132.1
29	125.0	131.7	148.7	146.1	136.8	148.0	143.6	142.5	118.4	127.8	153.5	147.7	155.5	151.9	163.3	192.8	215.1	225.5	261.6	258.8	259.3	265.1	280.7	291.8
30	285.3	279.3	261.6	237.5	255.1	182.0	208.7	219.1	226.7	187.5	175.0	180.7	171.6	184.5	176.2	164.1	178.7	158.1	155.8	149.8	141.1	155.3	152.0	151.0

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	162.2	144.2	153.2	164.5	258.5	325.2	319.4	305.4	315.2	316.8	331.6	340.3	328.4	315.7	292.0	291.9	291.0	291.9	284.2	283.2	284.5	281.6	290.0	86.6
2	120.3	148.8	174.4	173.8	156.0	145.5	191.4	133.8	4.4	313.8	305.8	307.2	317.7	320.1	317.9	313.1	331.2	322.8	325.6	325.9	326.6	314.2	321.5	308.2
3	299.0	303.1	276.2	125.5	157.6	172.2	170.2	164.2	165.3	166.1	173.3	161.8	159.0	157.6	151.2	160.1	153.3	164.4	162.0	164.2	168.7	173.8	187.6	176.4
4	170.8	162.7	163.5	163.1	157.2	164.4	155.8	160.9	161.4	159.2	143.9	143.6	130.9	133.1	130.4	128.4	126.9	122.5	127.1	132.1	137.6	155.4	161.0	159.5
5	163.0	161.2	162.2	160.6	167.9	188.9	160.9	169.7	277.5	316.1	310.5	308.1	303.2	317.5	320.0	303.1	305.9	298.5	20.4	163.2	161.7	158.9	159.8	149.6
6	145.3	138.2	142.2	140.6	143.0	148.0	138.4	126.8	118.0	123.4	155.1	152.2	132.5	133.2	149.3	151.7	143.4	153.5	150.7	160.7	173.1	191.4	351.9	13.9
7	162.2	158.3	144.2	177.5	155.3	162.8	194.5	167.2	256.7	320.8	321.5	2.3	334.1	356.8	294.6	320.3	314.3	303.5	312.0	222.5	182.3	133.5	115.5	132.5
8	135.5	138.5	208.0	348.2	147.3	157.0	139.4	125.5	123.5	100.9	114.7	157.1	148.6	158.9	148.4	151.5	153.6	139.9	139.1	126.3	128.7	150.4	157.7	157.2
9	142.4	140.3	137.7	136.2	139.8	148.5	143.9	147.6	132.5	116.4	104.1	90.6	103.8	91.4	108.3	92.3	85.1	162.9	218.0	188.6	200.8	244.4	285.3	307.7
10	301.6	306.8	309.3	310.2	329.1	297.3	282.6	308.1	319.4	355.0	3.3	3.2	324.8	315.9	172.0	192.0	160.7	153.2	160.0	163.1	166.0	155.7	158.8	157.4
11	148.4	153.2	160.3	147.2	147.8	141.1	151.6	150.3	147.1	145.3	145.4	140.8	146.1	147.3	142.5	148.4	161.0	162.4	159.2	163.1	161.1	164.4	170.0	153.4
12	157.8	133.6	152.1	166.1	257.2	309.3	311.6	319.6	325.4	333.5	321.8	322.0	327.3	330.6	333.2	175.5	183.8	158.2	163.4	154.7	158.0	162.1	160.6	162.6
13	155.2	162.7	165.9	161.1	165.0	156.1	173.9	162.6	158.5	149.0	133.3	149.2	157.3	155.1	155.4	158.4	156.4	164.6	166.1	174.6	180.0	171.5	165.4	166.0
14	163.1	177.2	174.8	173.8	168.0	165.8	155.9	145.7	158.5	157.3	145.0	157.6	155.9	158.2	153.8	158.9	150.8	151.1	156.8	160.6	157.5	160.9	158.8	166.9
15	189.3	184.9	196.4	188.8	177.4	185.7	128.5	161.6	321.2	343.8	327.5	344.0	345.2	343.2	252.4	259.9	254.1	264.7	262.6	263.6	259.2	265.9	270.4	255.2
16	261.2	292.2	294.1	297.9	317.4	308.5	313.8	309.0	310.2	310.5	317.0	323.8	325.9	332.7	329.9	328.4	311.0	313.9	311.5	304.1	303.0	302.7	307.6	319.4
17	316.8	315.0	305.9	309.5	311.6	309.5	313.1	317.6	315.2	311.9	338.8	352.3	15.2	60.3	149.7	158.6	152.7	152.3	159.1	160.0	154.7	159.5	150.7	149.2
18	147.0	144.0	141.8	137.6	139.6	140.8	126.9	141.8	151.5	130.4	139.9	20.1	5.2	357.0	15.2	154.7	165.4	168.6	161.8	168.3	158.2	178.5	237.7	268.3
19	314.7	321.0	319.4	314.8	312.4	315.2	313.1	320.0	311.4	309.4	312.3	318.8	324.4	310.3	315.2	64.9	142.1	202.0	238.1	268.4	258.5	240.2	254.7	248.4
20	305.1	268.0	246.4	302.6	151.1	336.9	188.3	297.0	258.1	332.4	109.1	283.4	324.9	282.8	293.9	52.1	53.6	248.3	289.6	280.6	285.6	266.1	262.9	255.0
21	235.3	182.3	155.9	163.0	213.2	224.3	227.8	248.9	164.5	220.3	226.4	195.3	206.9	203.3	207.5	217.8	217.5	221.8	219.3	212.3	207.0	203.6	209.0	199.7
22	181.4	185.2	180.7	173.2	176.6	167.7	177.4	181.2	176.7	181.6	177.2	176.8	183.5	176.4	176.3	162.5	154.2	145.4	146.7	146.2	141.3	124.1	129.9	136.2
23	135.8	138.1	140.6	129.6	116.4	185.8	175.3	131.4	122.9	143.8	154.7	158.5	146.7	141.6	133.8	122.6	119.8	120.5	123.2	123.8	121.5	118.6	121.1	130.1
24	124.9	123.4	114.2	116.3	118.2	121.0	127.2	116.0	105.2	104.5	102.3	99.0	100.6	84.6	82.1	69.5	78.5	82.9	89.1	72.2	86.0	82.4	66.3	66.8
25	64.6	64.8	62.4	77.0	75.0	56.6	106.9	60.0	60.2	57.4	59.9	58.2	67.8	59.2	64.6	77.1	70.7	89.1	85.1	92.0	96.5	92.5	108.1	203.8
26	208.9	252.0	218.8	259.3	314.0	304.9	307.9	306.0	315.5	315.5	321.4	325.1	340.8	347.3	0.7	6.5	312.6	257.8	268.8	270.2	275.1	277.9	261.2	297.3
27	321.3	305.7	301.1	301.6	317.7	315.7	315.6	317.6	312.9	316.0	328.9	343.4	340.9	329.4	320.7	322.2	320.1	314.5	341.8	340.8	359.1	327.0	312.1	324.5
28	306.1	308.7	307.0	307.0	313.9	305.0	308.8	319.3	310.5	313.0	306.8	307.6	310.3	305.1	300.0	300.0	292.4	287.3	275.9	275.0	285.8	273.2	287.7	319.7
29	315.4	318.0	322.9	308.3	313.8	312.6	314.7	313.3	319.7	314.2	326.3	327.8	326.8	325.2	320.0	314.2	317.4	343.1	328.6	328.5	296.2	312.3	300.7	299.8
30	299.0	301.6	309.3	302.0	313.2	325.1	316.4	303.7	308.3	324.4	133.0	112.4	127.7	188.7	161.0	227.0	219.6	223.0	224.5	217.7	215.6	183.8	170.0	205.6
31	209.9	203.0	201.4	164.4	158.5	163.1	160.7	147.8	149.7	149.6	150.9	152.7	156.2	146.0	149.4	150.8	143.9	148.4	131.4	126.7	119.7	123.3	124.7	123.6

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	119.9	119.1	123.3	119.1	118.2	117.1	128.1	121.6	119.4	121.4	123.3	124.3	127.4	126.4	124.4	122.8	127.9	128.8	122.6	123.3	120.0	118.1	117.9	115.3
2	113.7	114.6	119.8	117.3	115.5	115.4	116.2	118.0	119.9	118.9	117.5	119.2	117.5	119.0	119.2	117.7	120.6	124.4	119.1	115.1	113.2	115.0	112.7	114.5
3	130.1	133.0	132.4	125.6	122.6	125.1	125.4	125.5	119.2	117.8	129.0	133.7	129.3	126.6	129.2	127.8	126.6	126.9	127.9	128.9	125.3	120.2	124.3	121.3
4	121.2	121.8	118.8	117.5	119.2	120.9	118.6	120.1	122.8	124.1	126.4	130.5	133.9	137.3	140.8	141.2	143.7	148.1	142.5	137.9	138.7	139.1	139.4	134.1
5	137.9	138.9	138.7	134.0	137.9	138.7	152.1	159.1	164.2	199.4	201.6	193.5	197.5	203.5	203.3	199.7	203.1	213.5	230.4	232.6	232.5	236.8	245.7	256.0
6	259.9	269.5	266.9	267.6	271.1	302.1	293.8	287.5	302.2	311.2	307.4	310.3	308.2	305.8	311.3	312.7	316.8	314.2	320.0	313.4	308.8	310.8	310.6	304.3
7	306.5	304.4	313.6	313.0	313.2	320.7	315.8	324.6	334.8	336.4	339.9	341.4	343.2	339.2	337.3	339.5	335.3	335.6	339.7	335.6	331.8	327.6	328.1	316.4
8	311.6	325.7	321.8	312.7	323.9	308.0	315.6	322.5	328.5	328.6	325.5	327.6	328.1	334.6	330.3	330.1	328.1	310.4	328.9	323.7	322.5	323.3	311.0	309.5
9	316.1	317.8	314.2	324.8	316.0	322.9	311.1	321.0	317.7	320.2	354.1	346.8	350.9	327.6	295.6	312.5	249.6	181.7	188.0	186.1	197.8	202.0	198.7	177.3
10	149.1	169.2	171.6	167.8	165.0	166.9	153.6	148.1	125.7	111.0	117.0	116.8	150.1	155.3	146.5	157.8	156.1	161.6	162.3	165.6	171.3	175.8	166.0	162.1
11	155.3	139.6	50.8	307.9	318.0	344.1	330.8	330.0	316.3	321.2	316.3	337.3	329.0	134.3	166.3	180.4	187.9	222.7	260.6	266.3	231.7	199.4	165.7	187.3
12	191.4	198.2	220.6	196.6	180.1	155.5	130.2	165.6	165.6	186.7	178.0	264.3	298.2	255.7	162.5	175.9	195.2	225.6	219.0	244.0	256.7	266.7	269.7	274.3
13	228.6	164.6	125.4	190.6	215.0	171.5	157.1	156.9	121.2	114.0	120.7	194.5	214.8	214.5	219.4	213.7	190.8	218.6	217.5	214.4	194.8	237.3	253.1	232.0
14	222.5	231.7	231.2	233.1	254.1	282.0	158.1	232.6	223.5	219.3	225.4	216.9	217.1	203.0	216.0	193.4	172.7	231.5	228.1	275.4	263.0	345.2	350.3	329.7
15	313.2	306.9	304.9	313.7	308.6	314.0	318.0	314.4	318.9	325.3	319.8	324.2	327.4	340.3	329.5	335.5	331.7	326.1	333.8	340.8	333.6	327.5	327.7	305.1
16	308.5	313.4	305.5	291.4	0.2	65.5	21.7	320.8	305.7	321.3	60.7	317.2	326.7	355.4	335.4	18.6	345.7	96.5	171.1	165.8	170.6	161.2	165.8	159.0
17	159.9	164.7	159.6	164.9	155.9	147.9	150.7	158.1	144.2	134.7	121.9	127.9	135.0	128.5	127.5	115.6	124.4	126.5	125.1	125.1	123.1	124.2	121.7	124.3
18	121.1	116.2	114.2	115.9	117.7	117.2	116.5	117.9	119.4	119.8	117.2	114.9	115.4	113.2	110.9	113.9	113.0	112.6	114.0	115.4	114.8	114.8	114.8	112.9
19	115.8	118.0	120.2	119.0	120.1	121.4	114.9	112.1	117.2	117.8	114.4	120.7	121.7	128.1	127.3	127.5	126.4	128.9	131.9	133.7	130.9	134.6	129.4	122.3
20	117.0	124.1	129.8	123.8	117.1	121.2	123.0	121.0	120.9	125.0	113.0	117.9	119.2	118.6	121.5	121.6	119.0	123.0	128.4	124.5	129.5	133.1	130.6	117.5
21	118.4	123.1	125.0	127.4	129.2	122.5	119.1	114.4	105.6	108.8	108.5	119.6	126.3	122.0	126.4	123.5	125.0	129.2	128.8	124.5	120.6	128.5	134.3	129.2
22	121.7	122.7	123.8	124.4	124.5	127.5	125.8	121.7	120.0	122.6	120.1	122.9	121.3	121.6	124.4	123.6	121.3	125.5	121.5	118.6	114.9	116.9	124.6	113.9
23	107.1	98.9	103.0	94.3	53.6	38.0	67.4	282.5	299.6	312.8	311.4	328.3	322.1	326.0	324.5	325.6	329.6	328.7	327.2	318.7	307.1	304.5	303.8	302.4
24	298.4	304.3	302.7	306.3	307.1	307.2	309.6	310.6	311.1	327.0	324.9	328.2	316.5	317.0	339.1	4.9	298.3	290.3	90.2	141.0	156.2	129.3	133.3	164.2
25	156.4	160.4	140.0	141.2	190.5	217.0	191.4	169.9	144.5	143.9	124.8	134.5	163.7	156.8	139.9	129.2	137.6	130.5	135.8	147.0	161.7	161.0	153.0	141.6
26	130.2	142.4	146.4	144.2	124.5	126.6	112.2	133.4	145.2	140.7	134.4	121.8	125.0	122.3	120.2	153.0	138.7	118.9	123.6	142.3	141.0	132.4	107.1	101.5
27	84.8	86.6	93.4	74.0	28.0	360.0	356.0	343.0	88.3	106.6	87.7	72.9	71.2	78.1	92.8	125.0	110.9	169.3	175.8	187.0	170.5	225.6	261.7	300.8
28	278.6	306.4	303.4	320.9	108.9	120.1	59.3	122.0	106.6	80.3	69.7	40.3	14.1	51.7	12.8	344.2	5.5	327.0	309.0	303.0	297.4	305.8	322.9	316.7
29	319.6	323.4	324.6	325.0	337.3	326.3	328.2	325.6	329.7	323.3	323.2	332.2	323.3	325.0	332.1	329.4	326.1	325.2	323.5	333.9	330.0	325.1	327.4	324.7
30	322.9	329.3	320.5	311.5	304.9	309.3	309.0	315.7	319.8	323.1	324.5	347.3	350.1	348.9	357.1	345.4	345.0	337.5	344.4	355.2	353.6	300.0	319.5	313.1
31	307.6	307.0	302.9	316.6	315.5	309.7	308.3	313.0	311.5	314.4	312.2	313.7	316.7	320.7	323.0	0.3	144.3	312.8	234.4	157.3	88.9	324.8	320.7	299.8

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	263.2	318.6	138.1	202.5	131.6	147.4	124.1	128.4	163.4	169.3	168.1	178.9	171.1	157.2	155.7	149.7	147.6	148.5	151.1	171.3	171.9	175.5	171.6	174.5
2	168.0	162.2	162.3	162.0	162.7	161.2	154.6	165.9	160.4	185.0	197.1	206.5	190.7	301.5	348.0	352.0	344.8	340.2	339.7	339.9	339.7	338.8	338.0	337.2
3	336.8	336.5	335.9	335.6	335.5	335.3	335.2	334.9								142.5	0.0	125.7	112.0	111.1	112.6	111.8	112.5	114.8
4	108.7	113.7	114.0	107.0	94.3	113.0	42.5	51.2	59.7	0.0	303.3	240.8	315.9	39.8	18.4	351.1	317.8	294.8	283.2	281.0	289.2	292.8	300.9	296.2
5	292.1	304.4	296.2	302.5	284.1	291.9	293.8	298.0	295.1	294.7	0.0	261.0	279.9	296.4	274.7	255.5	82.4	113.8	194.4	205.9	185.5	274.1	297.8	227.8
6	218.3	208.4	214.1	314.3	284.1	180.8	212.2	218.6	220.1	199.9	186.8	178.9	186.7	202.0	201.2	195.1	165.0	158.4	150.8	143.0	161.5	161.2	122.2	118.3
7	99.3	121.7	128.2	122.1	127.7	122.4	109.3	108.6	114.9	112.0	110.1	113.5	115.7	114.0	114.9	115.6	114.8	111.5	111.7	110.2	114.0	115.4	113.3	112.6
8	114.5	117.7	120.4	121.1	127.7	129.6	128.5	129.1	132.8	127.1	130.9	126.7	130.5	141.4	149.5	152.8	153.8	149.4	153.8	169.0	180.1	163.8	154.6	157.9
9	158.6	162.4	160.8	160.0	154.1	142.1	152.2	158.5	154.4	154.9	147.7	143.1	143.4	149.8	144.6	149.6	132.8	142.0	156.1	114.2	124.8	159.4	141.8	98.9
10	158.0	169.5	165.8	155.4	137.9	168.0	152.6	151.7	164.2	172.0	102.1	86.5	108.9	125.8	135.1	138.9	138.9	133.7	135.5	128.4	122.8	119.0	117.9	117.9
11	116.9	117.5	115.3	117.2	118.2	116.1	115.8	113.0	114.4	117.1	116.3	112.4	110.4	105.5	109.1	110.4	115.4	116.2	113.3	109.1	107.6	110.7	117.4	113.6
12	113.2	113.7	117.9	117.7	128.9	143.3	144.4	149.0	159.4	159.9	163.4	163.1	167.1	171.3	172.5	174.9	195.3	212.2	199.7	208.9	203.2	198.8	190.0	207.1
13	192.3	162.4	152.5	149.8	139.6	131.3	138.9	140.6	156.5	180.5	185.2	176.3	158.3	170.0	175.9	158.4	141.6	144.9	139.0	186.2	160.1	154.2	133.0	189.5
14	152.6	134.6	99.9	99.7	99.2	111.9	117.9	92.5	101.1	74.3	339.6	99.0	53.9	345.9	330.1	332.4	321.8	304.0	301.2	291.6	296.5	297.3	299.0	303.3
15	298.1	289.7	299.5	292.3	299.0	302.9	301.5	309.1	309.8	306.9	299.7	303.5	310.5	309.1	302.8	315.1	308.2	292.6	287.1	291.9	289.3	292.7	281.6	275.4
16	273.5	269.5	272.5	277.2	272.5	283.2	291.5	290.7	299.9	317.8	311.1	312.0	312.2	308.1	300.9	308.6	300.2	279.7	281.2	271.5	262.9	267.6	269.1	257.9
17	318.5	250.1	229.7	71.3	214.3	209.7	238.0	236.2	224.5	208.7	188.0	191.0	185.3	202.8	176.1	183.8	168.8	141.7	134.6	119.3	94.7	100.3	103.3	106.8
18	121.3	121.6	128.9	134.1	122.9	128.3	119.3	114.3	101.2	108.5	112.5	114.4	113.5	109.4	113.7	119.0	121.7	118.8	117.9	118.0	116.0	120.8	164.3	166.1
19	213.8	224.4	222.5	221.5	237.5	213.7	189.2	219.8	201.9	174.6	188.5	198.9	201.1	204.3		216.0	216.4	221.0	213.3	211.9	213.0	208.2	211.9	208.0
20	209.6	216.5	209.6	216.0	215.4	212.0	212.4	217.7	219.5	217.2	212.4	211.6	223.4	231.6	246.5	244.2	255.3	245.7	237.6	280.1	292.5	310.8	302.0	275.7
21	304.7	295.4	283.9	287.9	289.7	297.0	296.3	293.9	292.2	293.5	296.9	303.9	304.0	301.2	298.6	306.9	296.8	306.6	308.4	302.3	298.1	311.0	299.0	298.2
22	305.3	313.8	333.3	310.6	307.4	306.6	304.4	314.2	41.0	101.0	112.8	110.5	108.4	102.2	113.1	116.4	117.1	105.2	105.8	102.0	100.8	100.4	103.0	100.1
23	95.3	91.3	89.8	92.7	65.2	80.0	89.1	96.2	120.6	116.6	128.9	138.3	147.4	141.5	143.5	138.1	142.8	136.0	143.4	155.0	185.6	204.3	202.2	203.7
24	205.0	206.7	198.3	220.2	239.4	250.3	251.6	236.0	232.1	232.8	237.7	231.8	230.0	214.1	217.6	188.6	182.4	179.9	216.2	196.6	111.3	109.8	152.3	160.9
25	253.2	256.8	234.2	228.9	210.6	217.2	228.6	234.2	235.8	246.0	241.8	215.7	226.0	228.5	217.4	209.8	213.0	221.3	225.2	216.5	230.1	232.2	221.5	218.5
26	223.0	225.5	213.6	224.9	230.4	229.2	254.0	261.2	274.7	191.9	228.6	262.2	253.8	223.0	249.0	260.8	113.4	285.7	268.8	264.1	270.2	279.5	265.3	263.4
27	270.0	268.3	271.9	286.0	292.2	245.1	267.8	181.7	158.6	137.2	171.0	122.1	132.9	138.7	138.7	145.3	126.1	117.6	114.6	122.6	119.5	117.0	115.6	109.6
28	109.9	111.9	108.0	109.2	111.3	109.6	116.9	125.9	129.5	131.6	137.3	131.5	125.5	125.0	123.3	99.6	97.9	86.0	88.0	88.8	88.6	69.8	4.1	317.7
29	310.4	303.0	299.8	299.2	302.7	302.1	300.1	293.6	292.4	298.0	308.7	299.8	246.7	190.3	201.0	212.2	215.6	177.8	151.3	146.9	187.2	218.4	228.1	241.1
30	253.4	231.3	217.7	204.5	174.8	169.6	162.6	156.7	147.5	137.6	130.5	189.4	217.2	192.6	192.5	165.4	159.8	169.3	163.3	176.7	139.6	143.0	206.6	229.7

Total Hours in Month 720 Hours Data Available 712 Data Recovery 98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	244.4	256.3	244.5	245.7	242.3	243.8	237.0	232.6	267.8	297.6	299.8	306.0	323.6	317.4	312.5	300.6	289.9	289.5	282.5	291.4	287.8	287.3	286.3	284.0
2	285.4	288.5	284.2	285.3	286.9	287.0	287.7	292.4	293.9	297.4	300.1	304.3	308.2	306.9	305.1	312.1	310.3	312.1	305.9	300.9	296.9	293.2	296.8	298.2
3	299.6	303.5	303.6	305.9	301.9	298.4	299.4	299.0	305.2	308.0	307.6	318.0	323.6	325.0	320.9	330.1	327.2	331.6	314.2	321.6	338.3	267.1	316.4	308.9
4	353.8	23.1	85.9	102.9	99.2	110.8	106.9	119.7	127.7	122.9	115.2	115.9	115.7	115.2	116.4	116.0	121.4	120.9	127.6	132.2	129.6	130.5	139.9	136.1
5	133.6	136.7	127.8	134.5	134.3	136.4	134.5	137.7	121.1	106.4	102.0	107.6	207.5	280.8	294.7	297.6	294.3	299.2	292.1	299.3	303.9	293.5	287.6	297.7
6	300.9	295.5	299.3	301.0	303.4	308.8	310.0	309.2	320.6	322.5	324.3	319.6	314.1	320.5	327.3	324.5	320.3	312.0	309.5	312.7	303.6	316.8	307.8	306.6
7	310.3	311.4	309.6	314.7	318.3	312.7	319.7	313.9	317.9	315.1	317.0	321.3	326.5	327.5	329.4	331.8	333.6	335.9	332.8	332.6	328.1	326.5	322.8	316.4
8	311.7	316.3	316.5	322.9	323.0	325.1	316.7	312.9	319.4	313.8	311.8	316.4	323.5	328.5	332.6	324.6	322.6	329.3	320.5	314.4	313.5	311.4	317.3	334.1
9	323.9	323.2	310.4	311.5	302.4	338.6	134.5	90.9	111.3	313.0	314.0	90.7	271.6	289.1	308.6	310.8	322.6	328.2	327.8	323.1	297.9	302.1	297.1	297.8
10	293.0	295.6	298.7	298.7	302.7	294.9	290.5	299.6	303.7	301.7	304.4	315.7	320.4	326.9	313.7	319.3	303.1	318.1	325.5	319.4	305.0	310.4	303.3	304.8
11	303.1	311.1	307.5	303.9	301.6	303.0	321.3	306.3	99.0	100.1	113.9	120.7	122.0	110.6	110.8	108.2	106.6	115.2	117.0	116.9	122.8	123.1	124.5	122.2
12	123.5	124.3	125.5	115.6	115.1	117.2	116.8	121.9	68.7	343.7	177.7	314.9	287.0	314.3	337.5	337.1	321.4	307.2	306.5	335.5	334.7	302.2	301.1	299.9
13	298.2	297.4	307.0	310.6	312.4	312.6	313.0	300.7	303.2	302.5	310.5	306.9	309.0	314.8	290.3	295.6	301.3	303.9	299.6	299.8	301.0	306.3	305.5	305.1
14	304.8	299.7	302.6	304.3	307.0	312.0	310.8	307.6	304.5	304.9	311.3	308.8	309.9	320.7	321.3	336.7	320.5	318.2	315.8	335.1	335.3	345.3	333.6	317.6
15	306.0	304.9	309.0	286.1	297.0	265.7	305.5	122.7	115.5	107.1	114.8	112.6	312.3	306.4	296.6	338.2	304.7	340.4	333.2	343.4	329.1	301.5	308.9	311.5
16	307.8	306.4	305.9	298.5	302.6	303.8	305.7	301.1	304.6	306.7	307.3	302.5	310.8	306.0	307.1	310.2	304.0	305.8	311.1	327.9	317.5	316.5	310.0	307.6
17	310.1	310.8	307.9	302.1	299.3	300.9	299.8	300.1	300.2	297.1	303.9	305.2	308.6	305.7	312.0	312.6	321.4	331.1	311.6	304.3	300.7	300.7	299.7	298.2
18	296.7	297.4	297.9	297.7	301.4	296.1	309.7	308.2	301.1	305.7	310.7	305.3	321.4	317.9	302.2	292.5	308.2	303.5	290.2	290.5	294.9	293.7	288.1	283.2
19	287.5	284.0	302.7	322.7	307.5	294.6	294.0	313.6	298.9	292.6	264.9	291.8	217.2	29.6	118.8	120.6	121.1	117.1	99.4	90.6	94.1	85.2	76.9	98.8
20	99.5	116.8	126.7	121.7	105.1	96.3	102.0	107.5	99.4	104.1	93.3	106.3	110.4	107.4	109.7	103.8	99.6	92.4	93.1	87.3	85.9	89.5	90.6	94.6
21	98.4	92.5	91.1	89.4	93.4	100.8	110.8	94.1	94.0	61.8	89.6	65.2	82.7	79.9	52.0	54.8	76.7	69.0	331.6	321.1	292.7	306.9	303.1	296.6
22	301.9	298.5	309.6	306.2	300.0	304.9	304.9	307.6	312.9	332.8	313.0	316.2	78.1	115.5	112.2	118.7	102.0	105.2	300.1	288.8	290.1	145.9	111.9	155.1
23	133.8	153.9	130.7	115.5	130.8	128.7	150.3	122.3	130.6	135.9	149.2	173.5	161.6	171.2	155.1	124.7	99.7	317.8	300.4	288.4	288.1	299.2	287.7	286.4
24	183.2	225.3	174.6	117.4	103.0	113.7	120.1	124.1	107.0	104.2	124.7	159.5	161.1	194.2	190.2	170.7	149.8	151.5	118.4	93.1	90.5	92.9	93.3	101.4
25	118.6	116.5	122.0	113.8	112.6	109.5	110.2	113.2	110.6	107.3	106.7	107.9	107.8	107.0	105.9	105.5	107.6	108.6	110.3	112.0	133.7	136.4	147.5	135.8
26	132.2	137.1	140.2	139.0	122.2	109.2	115.5	130.5	142.5	145.2	141.9	147.8	135.1	129.4	134.2	115.3	108.8	105.9	116.8	116.9	108.9	106.7	106.2	110.1
27	105.9	106.8	106.7	107.6	108.0	114.8	113.6	122.0	91.5	58.4	60.3	74.9	102.0	117.0	108.7	111.9	106.8	121.7	123.6	129.0	121.8	114.9	110.5	120.0
28	113.7	120.6	119.0	118.3	137.9	93.3	138.4	150.5	165.1	158.2	145.7	148.3	143.8	147.2	149.9	143.5	145.5	121.9	115.4	119.8	110.9	117.4	116.3	113.3
29	113.8	110.3	112.1	111.8	110.9	109.1	107.2	108.5	109.0	106.3	106.9	107.2	109.6	108.8	110.9	111.0	108.3	108.1	96.8	103.7	107.5	108.8	109.0	111.1
30	88.0	67.0	50.1	44.3	37.0	38.0	1.7	342.2	305.5	293.1	298.9	302.7	294.9	242.5	234.7	320.1	201.3	216.4	234.2	227.8	205.4	222.6	237.6	240.0
31	266.1	268.0	222.3	240.2	248.6	244.9	236.8	233.4	233.9	228.2	217.8	212.4	211.8	206.0	190.5	162.1	152.6	122.9	106.2	96.7	98.3	104.4	95.7	85.6

Total Hours In Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	87.7	68.3	84.9	77.3	67.7	51.5	58.4	69.9	24.1	315.4	318.7	315.7	301.7	306.5	224.9	152.2	167.7	277.6	277.0	277.6	279.6	277.2	272.9	271.8
2	278.4	280.0	282.4	334.9	279.3	285.9	296.9	299.3	301.9	300.7	294.1	294.2	294.8	298.8	311.2	313.8	304.9	293.3	291.8	302.5	307.5	307.0	305.0	301.9
3	303.9	304.2	307.1	297.6	294.9	291.0	291.5	302.7	292.3	265.9	244.8	136.5	184.9	121.1	117.0	115.4	160.9	169.4	151.4	115.1	113.6	117.2	120.0	119.2
4	113.1	108.8	108.7	108.9	111.6	114.4	109.7	110.3	113.3	114.3	116.0	117.3	118.5	123.9	120.3	121.7	122.9	124.2	123.0	132.2	135.7	124.4	116.6	113.6
5	114.9	113.6	112.7	113.3	115.1	112.8	111.1	100.9	98.7	100.9	106.7	101.4	109.2	108.0	104.3	103.9	102.2	106.2	105.2	111.3	109.5	117.0	114.9	108.3
6	115.0	113.2	113.8	112.3	112.5	107.3	104.4	102.5	104.9	104.4	106.6	104.9	104.4	106.9	105.8	101.8	104.8	105.8	106.2	111.7	110.2	111.3	123.1	149.6
7	151.1	127.0	113.8	121.6	116.5	111.3	111.2	113.0	117.9	124.7	118.5	121.6	124.9	134.1	158.1	157.2	172.0	169.6	174.7	197.7	197.0	200.5	192.9	150.9
8	146.9	142.1	106.0	104.4	101.9	102.0	101.0	105.7	107.4	104.2	105.1	105.5	108.8	119.3	115.0	115.6	120.8	121.8	116.5	112.3	112.9	103.3	109.9	119.7
9	118.0	115.5	119.8	110.7	109.9	110.5	113.1	112.9	118.1	121.7	118.5	116.6	112.4	114.0	116.0	113.3	117.6	117.1	115.9	108.6	112.1	99.9	84.5	344.4
10	320.7	314.8	299.4	300.8	298.7	297.4	305.7	304.8	299.9	300.9	303.6	309.3	312.4	305.3	310.1	304.9	303.2	317.9	318.8	305.0	310.6	304.5	321.7	313.2
11	302.4	295.5	308.9	299.9	299.6	301.3	298.4	299.6	297.6	297.6	297.8	300.3	303.2	297.7	311.2	308.5	305.4	309.4	307.2	319.8	304.1	302.3	292.7	279.5
12	295.4	291.8	294.7	315.3	149.1	131.9	142.0	119.9	127.6	181.8	189.2	188.3	128.0	108.7	98.9	93.7	102.7	104.4	93.4	95.4	115.9	115.5	117.5	118.0
13	110.7	105.0	107.2	105.5	106.0	105.9	110.2	111.7	110.2	107.6	107.8	101.8	91.2	120.7	155.8	256.5	31.9	101.8	97.6	100.9	91.2	100.9	106.6	112.3
14	134.8	143.8	146.9	139.1	139.9	147.7	137.1	140.9	148.4	94.5	90.8	109.8	110.6	112.7	111.5	112.3	94.5	106.1	103.0	92.5	56.2	52.8	18.1	306.8
15	296.0	301.7	303.9	299.7	301.4	304.6	311.6	324.2	311.6	326.9	322.0	323.5	323.8	318.2	309.9	319.4	325.6	319.3	321.6	322.1	313.9	318.9	324.3	320.2
16	312.9	312.9	312.0	310.5	307.3	313.2	318.1	316.5	315.9	316.3	318.0	319.4	324.6	330.1	327.9	328.7	328.4	327.0	331.0	327.9	331.6	329.8	327.8	329.2
17	326.0	327.4	323.6	319.4	327.4	327.3	328.2	322.7	317.9	310.6	310.7	310.3	316.1	318.3	318.4	324.0	321.8	313.0	321.5	327.2	321.7	318.9	325.8	319.7
18	314.6	305.0	297.3	299.6	302.7	305.4	294.4	298.9	301.5	298.1	307.2	299.1	302.0	304.1	305.9	308.3	303.0	297.3	299.1	296.1	306.7	4.6	137.9	112.7
19	104.2	102.5	99.2	84.0	104.0	122.6	114.2	144.1	109.3	124.4	118.2	111.8	109.5	113.5	113.8	115.7	116.3	115.5	113.5	98.7	108.1	103.4	98.0	96.4
20	99.5	97.9	96.5	96.6	94.7	106.2	106.4	106.9	107.6	107.5	107.1	107.5	106.7	109.7	114.8	112.4	109.5	102.5	93.4	85.7	77.6	60.4	98.7	89.1
21	81.1	81.6	90.0	98.4	100.2	105.0	119.9	133.4	139.6	128.2	122.0	119.4	121.1	117.2	114.4	123.7	130.6	120.4	118.4	119.2	120.2	119.0	114.2	124.2
22	131.2	121.1	113.2	107.5	92.7	80.8	73.6	81.0	93.1	104.0	107.1	107.0	106.3	103.2	96.0	91.8	85.7	96.5	102.9	111.6	118.8	126.1	141.2	166.8
23	165.6	169.7	171.6	173.8	183.1	204.7	199.8	192.7	192.4	198.3	203.5	189.2	192.3	213.0	215.1	215.5	215.8	215.9	215.4	214.9	220.9	223.7	224.4	218.5
24	209.3	213.4	219.2	233.3	227.6	149.7	158.0	119.4	115.8	107.3	108.0	101.6	98.0	104.8	109.7	104.9	107.1	107.0	105.6	107.3	105.8	104.0	104.4	107.5
25	105.3	106.6	107.1	110.2	105.1	105.8	101.5	84.4	92.1	89.4	94.5	92.0	72.8	86.6	87.7	93.8	95.2	93.4	72.8	59.9	79.7	58.7	48.2	54.0
26	39.9	43.6	34.1	3.2	7.9	358.9	45.5	77.3	97.3	115.8	141.8	151.9	152.0	166.9	138.1	146.0	133.2	143.0	145.0	150.1	152.5	134.9	127.4	122.2
27	127.2	120.4	109.2	109.9	111.9	109.6	108.2	107.8	108.8	109.5	112.8	110.7	112.3	109.2	109.6	110.2	114.6	117.6	111.9	114.7	116.4	119.5	116.5	119.9
28	125.4	123.3	127.2	131.2	136.4	138.2	120.7	143.5	146.5	145.5	142.6	145.0	145.8	138.2	123.6	132.5	132.8	128.4	128.4	122.8	120.5	122.7	133.6	131.8
29	130.9	135.0	126.4	121.9	107.1	112.0	116.2	118.3	116.8	117.7	117.8	114.4	119.4	117.6	118.7	114.8	113.0	114.8	120.9	120.1	122.4	122.8	120.3	117.3
30	115.2	117.3	115.7	114.0	116.1	116.7	112.4	112.7	113.4	118.8	118.4	113.7	112.3	115.7	118.9	117.9	123.3	128.1	124.9	121.6	117.6	124.5	121.0	121.6

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (Climatronics) (Degrees)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	131.7	130.2	133.4	136.8	129.0	122.2	131.1	130.8	145.7	149.4	138.2	154.3	135.8	137.4	151.2	165.1	171.0	155.8	150.4	231.9	300.8	304.4	302.3	304.7
2	304.7	304.9	312.6	309.7	308.6	305.4	307.2	302.1	306.8	301.1	345.5	300.1	41.4	198.7	203.4	183.9	171.7	286.7	21.8	69.2	92.6	82.8	84.6	107.4
3	126.7	108.7	103.9	109.8	110.4	110.0	109.0	108.3	110.8	109.0	103.7	99.2	102.7	93.9	86.2	89.5	75.7	50.0	126.0	111.1	124.9	137.7	112.4	116.7
4	108.9	117.8	115.9	117.4	119.0	117.5	111.8	105.9	112.1	108.0	101.7	120.8	114.8	104.2	118.1	135.9	132.8	124.9	132.3	138.9	138.6	128.0	147.9	136.5
5	150.3	145.5	143.5	147.3	153.8	149.1	149.9	151.6	150.0	139.4	129.3	119.3	117.7	117.9	117.3	115.8	118.1	117.0	117.7	118.4	115.3	112.6	117.4	115.3
6	113.6	113.6	111.4	112.2	113.4	112.8	115.6	115.0	114.6	114.8	114.3	112.4	111.6	112.8	118.2	122.3	144.0	154.9	220.4	221.4	207.1	203.3	197.8	190.7
7	186.4	169.0	128.6	140.5	119.7	124.5	116.5	120.1	102.4	103.0	108.7	105.0	109.2	104.9	104.4	106.3	105.8	107.2	106.4	104.4	102.9	103.1	103.1	104.0
8	110.3	118.7	142.1	160.1	163.8	166.7	163.1	155.8	149.4	141.8	137.8	120.1	116.6	131.8	141.9	158.0	241.5	209.6	211.2	219.9	230.3	230.0	232.3	231.7
9	202.3	148.6	128.2	130.0	118.9	93.1	99.4	99.8	106.2	117.5	117.2	124.2	119.7	117.6	110.9	118.0	115.7	116.7	114.7	113.7	112.6	117.5	119.5	116.8
10	110.5	117.4	117.6	105.3	98.7	88.7	70.1	61.4	50.3	357.0	23.7	358.4	324.8	328.5	340.1	339.5	333.5	333.6	315.8	304.1	301.5	305.3	301.1	300.6
11	299.4	297.2	300.2	300.1	294.4	297.2	293.8	288.3	273.0	304.2														
12																								
13																								
14	307.5	309.4	310.7	315.1	311.6	300.9	314.7	305.4	302.4															
15	309.6	320.9	315.3	319.7	321.0	318.7	315.6	312.2	307.0	306.8	308.3	310.1	310.6	308.1	308.5	307.3	308.6	310.0	313.2	319.0	317.5	329.6	326.9	319.3
16	310.8	312.6	314.2	314.8	315.7	316.6	322.0	323.4	317.6	315.1	314.0	316.2	314.6	315.9	323.0	325.0	327.8	329.9	324.7	324.6	327.7	328.0	323.1	328.4
17	324.4	321.8	328.0	326.2	326.0	323.5	328.1	331.3	329.8	329.7	328.9	330.1	327.1	328.4	324.8	319.2	322.5	325.1	325.0	317.8	314.8	317.0	309.1	310.1
18	306.0	304.4	306.0	298.8	296.9	303.0	308.1	302.8	296.9	297.8	298.0	302.5	311.1	306.4	302.2	324.0	320.4	310.7	305.9	298.1	298.2	300.6	312.3	313.0
19	305.1	309.1	317.4	311.9	313.2	308.0	313.1	304.7	310.7	309.7	302.3	298.2	295.9	299.8	300.4	301.7	306.4	295.1	294.1	303.8	303.9	295.8	288.0	295.6
20	305.1	300.3	292.6	130.1	107.2	108.0	113.9	112.9	108.6	110.5	107.5	110.6	121.6	119.2	119.0	118.5	120.5	121.4	117.9	117.2	127.6	138.0	136.8	108.4
21	108.6	119.5	117.8	117.9	120.8	116.6	126.8	159.8	161.0	151.3	152.3	140.5	144.1	150.0	136.1	108.3	125.0	122.8	126.1	122.0	120.7	121.1	106.0	122.6
22	120.8	110.6	105.4	106.8	109.9	107.8	111.9	112.1	115.0	119.7	118.7	112.9	111.9	116.1	117.9	117.4	123.7	126.4	122.9	125.2	125.8	176.9	211.2	213.7
23	214.3	224.4	227.8	232.0	217.4	185.2	191.1	200.4	214.6	218.8	232.5	233.8	255.7	256.5	264.2	272.5	266.2	253.3	318.0	346.5	203.6	207.8	296.9	359.4
24	56.6	323.5	315.9	309.7	309.6	317.2	308.2	329.8	327.5	322.4	320.6	330.4	331.5	333.1	336.2	335.5	331.7	329.1	318.5	315.7	319.9	317.5	308.6	313.6
25	312.6	313.4	319.1	322.0	321.2	322.1	318.8	321.2	311.3	315.0	307.3	301.6	299.3	300.9	302.7	301.6	303.1	306.4	303.4	304.4	305.3	312.8	321.5	323.7
26	311.0	303.4	290.2	268.7	281.1	294.6	119.8	109.0	118.5	127.8	124.0	108.9	107.0	116.3	129.5	110.9	107.9	111.4	112.2	106.0	105.4	106.1	104.8	103.2
27	106.0	107.8	105.8	107.4	108.5	107.6	105.9	106.2	105.6	103.2	102.5	103.0	100.8	99.5	95.3	92.3	90.6	89.4	116.0	106.4	128.8	154.5	162.5	
28	158.2	176.8	193.1	194.8	209.1	265.1	290.0	281.3	287.5	300.6	316.6	311.4	314.7	311.9	309.1	327.1	319.2	304.8	318.3	324.1	331.0	325.7	322.6	322.3
29	315.8	317.0	314.1	312.3	312.0	309.5	306.4	303.6	302.5	302.0	300.3	307.8	307.9	301.0	300.5	316.6	305.9	299.8	303.5	297.7	295.8	298.6	300.3	299.7
30	299.0	307.6	308.4	307.5	315.2	311.5	314.0	308.5	316.5	337.4	313.3	324.0	331.4	338.7	308.7	317.9	336.8	348.4	321.0	305.8	324.2	317.6	297.2	302.6
31	296.5	311.9	309.0	306.1	311.2	306.0	308.5	305.6	310.1	313.3	307.3	306.2	312.9	306.8	301.4	309.0	310.1	309.9	310.8	309.4	313.4	314.2	309.1	319.0

323.1 311.4 317.6 313.1 310.0 307.5

Total Hours in Month 744 Hours Data Available 673 Data Recovery 90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	302.3	301.3	302.6	311.6	308.8	302.9	303.6	304.5	303.1	299.0	299.7	296.4	301.7	306.4	304.7	304.0	304.4	306.9	303.4	307.6	314.6	305.8	306.3	304.1
2	309.0	316.7	317.8	304.3	321.6	317.9	310.8	302.9	306.2	301.7	303.6	309.8	313.3	317.9	302.3	306.0	307.8	312.1	316.5	313.2	311.4	305.9	307.9	311.4
3	304.5	302.6	302.2	299.8	302.2	306.3	307.0	315.2	312.8	306.7	310.8	313.5	310.7	316.3	309.0	313.7	316.1	303.7	302.7	297.8	300.6	312.1	319.9	316.4
4	311.6	306.4	303.9	310.0	310.3	312.1	304.4	313.4	310.1	305.0	308.8	310.8	305.8	304.6	309.3	311.5	302.6	358.0	94.7	68.3	115.0	110.3	120.9	173.0
5	187.7	115.1	312.8	308.6	303.9	310.8	315.8	304.7	301.0	311.8	306.3	304.2	314.2	310.4	303.4	308.0	302.3	301.7	298.1	300.2	312.9	310.6	316.3	308.0
6	303.7	297.5	310.4	312.6	304.2	307.2	303.0	318.5	311.4	314.0	318.8	312.7	304.5	304.0	305.1	301.0	306.9	310.3	307.2	307.2	309.0	301.9	311.0	307.6
7	309.3	315.6	314.4	309.4	317.6	314.9	309.0	310.5	300.5	311.1	310.7	312.2	322.1	301.9	305.8	299.0	311.8	306.2	309.5	312.6	305.1	311.6	311.4	302.2
8	304.0	300.3	305.8	313.5	317.1	313.0	313.9	316.0	314.9	308.8	304.7	316.5	314.4	313.3	321.8	309.8	316.3	321.2	306.6	307.0	306.7	303.5	304.7	305.3
9	302.6	304.5	299.4	296.4	309.0	311.5	305.2	311.5	311.5	311.6	309.6	318.5	96.2	116.6	106.2	135.9	164.0	155.0	156.6	151.8	153.0	155.9	150.7	157.6
10	160.3	147.4	154.9	163.5	146.4	145.7	143.1	140.2	124.3	108.3	106.1	125.6	121.3	124.1	125.2	122.7	123.2	124.6	121.6	123.5	123.9	123.3	126.3	128.3
11	122.5	123.0	122.6	119.2	119.0	115.8	114.9	113.1	112.8	116.7	118.6	117.2	117.2	117.8	116.6	112.5	114.5	115.6	117.9	117.1	114.3	112.1	112.3	110.8
12	107.9	113.2	113.5	113.6	112.6	113.9	114.1	113.9	119.5	122.1	121.6	120.0	117.4	119.5	118.3	117.6	114.4	115.1	114.0	117.3	117.7	120.0	120.0	159.9
13	241.7	231.5	231.0	235.2	230.2	217.0	203.4	207.8	194.1	190.8	200.8	163.4	178.3	186.1	168.9	130.8	110.5	110.3	109.4	348.4	327.2	322.7	310.9	305.7
14	302.4	300.3	305.2	316.8	317.0	316.7	316.0	314.1	321.1	330.4	313.7	313.1	330.2	330.7	328.9	324.0	321.6	322.8	317.2	317.7	314.9	316.0	312.4	305.4
15	307.5	307.9	306.8	307.4	304.0	303.3	305.0	299.0	300.6	309.1	309.7	309.1	314.0	306.3	305.5	306.1	309.2	306.5	308.9	312.1	310.7	315.7	311.2	308.9
16	309.4	302.8	7.8	102.3	87.4	108.2	121.3	115.4	116.3	103.8	111.6	112.2	110.5	111.7	110.5	111.8	110.8	111.4	113.1	115.1	116.6	118.4	120.3	120.7
17	122.0	124.7	130.0	144.4	144.8	142.9	127.4	123.1	130.9	134.7	116.9	130.0	130.8											
18	119.0	125.7	137.7	136.5	108.0	100.2	102.6	100.2	95.5	105.0	136.1	290.7	306.5	305.2	285.0	303.4	301.8	305.2	303.2	298.1	310.1	306.4	303.5	299.9
19	304.8	304.1	306.0	316.4	297.1	311.4	331.5	36.5	149.4	195.0	77.1	109.8	104.3	89.0	109.6	111.6	119.8	115.6	103.4	123.5	114.8	114.8	117.1	110.0
20	105.3	114.6	111.8	120.2	121.5	121.4	117.8	116.8	114.3	115.1	109.8	96.4	101.4	102.7	48.7	37.3	359.8	7.8	346.3	311.9	320.9	321.1	326.4	307.4
21	309.4	314.8	319.7	313.7	317.4	307.4	324.6	293.1	305.1	295.8	297.3	288.5	278.8	279.7	247.9	228.2	221.8	254.4	258.9	259.6	258.7	292.9	245.6	252.7
22	248.4	235.6	221.2	212.5	158.2	150.7	127.6	124.9	124.2	109.5	107.7	101.2	106.0	27.8	316.8	307.9	310.7	307.9	306.5	309.5	311.3	303.8	304.0	306.1
23	312.9	309.2	330.2	303.8	307.9	325.9	322.8	311.5	317.5	320.1	308.2	306.1	299.8	302.0	300.5	301.6	301.0	304.5	312.7	310.3	316.5	319.6	316.5	318.0
24	318.9	312.3	310.0	304.7	305.3	306.5	302.1	309.0	314.7	303.6	310.4	314.9	323.4	317.9	304.8	299.9	313.0	320.2	317.4	308.7	298.1	302.5	307.4	304.8
25	299.5	297.4	182.9	124.5	114.3	113.1	107.2	100.8	109.1	111.9	110.8	113.4	113.4	113.9	111.8	108.2	105.7	109.3	109.8	108.7	110.6	111.0	109.3	111.8
26	115.8	114.7	115.0	113.5	113.1	112.6	114.2	113.6	114.1	114.8	115.1	120.2	125.4	126.7	129.2	131.6	136.2	133.3	127.7	134.0	133.7	132.4	131.6	125.6
27	125.7	125.6	123.5	117.5	115.3	114.9	118.0	118.8	116.2	121.1	114.0	115.0	117.9	113.6	108.1	113.8	114.6	114.0	118.0	113.7	113.8	113.3	109.0	112.5
28	114.2	114.3	115.4	115.2	114.8	111.8	115.7	113.2	115.6	120.9	122.0	132.5	139.9	155.2	135.6	129.3	127.3	129.0	130.4	126.7	126.7	131.4	122.8	123.8
29	122.4	121.1	114.9	109.1	105.1	112.8	114.7	123.0	121.4	120.2	115.6	119.3	117.2	115.3	113.2	116.4	118.2	118.8	116.2	116.4	113.7	114.1	115.0	115.9
30	122.1	117.2	116.4	118.6	120.4	114.7	113.7	111.9	113.1	111.7	114.1	119.4	125.4	126.7										
31																								

Total Hours in Month 744 Hours Data Available 703 Data Recovery 94.5%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1																								
2																								
3																								
4																								
5																								
6																								
7	94.4	104.6	108.2	104.7	126.2	142.9	224.6	159.8	166.7	158.6	287.8	280.1	171.0	137.2	144.5	302.0	312.0	34.5	109.9	87.9	94.2	84.3	109.8	118.6
8	113.3	122.6	132.5	137.7	123.1	153.3	153.8	153.7	159.8	160.0	158.7	159.0	156.9	162.9	159.8	164.1	162.9	157.2	157.4	167.6	164.8	159.1	157.5	151.8
9	141.4	145.4	151.7	153.3	165.4	159.8	164.4	155.1	145.3	154.2	146.9	137.2	132.6	136.8	146.9	150.6	154.6	147.1	132.1	136.8	167.6	353.0	313.5	313.8
10	308.6	354.6	32.9	29.9	335.0	293.6	323.4	323.4	332.8	322.8	320.0	318.1	314.4	312.7	318.2	317.4	320.2	316.4	321.3	327.3	326.6	310.4	319.0	320.7
11	319.7	137.4	130.7	138.7	129.6	128.4	116.0	120.4	142.4	136.1	126.3	123.2	130.8	127.5	122.8	125.4	124.3	123.0	122.2	124.7	121.9	113.3	115.7	119.0
12	120.7	118.7	114.9	122.5	122.2	120.0	120.5	118.0	112.3	116.7	115.4	114.4	117.4	117.1	117.0	119.3	118.2	111.3	109.6	91.3	85.4	89.0	83.1	101.1
13	67.9	53.7	58.2	59.4	40.6	36.4	52.3	60.0	56.6	60.2	70.6	80.1	98.4	79.9	82.6	99.9	113.0	128.0	129.2	125.0	120.6	122.6	126.0	127.4
14	119.5	120.8	117.8	117.5	111.1	111.1	116.9	118.1	121.9	111.9	107.9	122.2	124.8	123.4	126.9	125.1	128.7	138.0	139.6	118.4	101.1	115.8	88.3	359.5
15	338.4	322.7	347.2	211.9	307.5	301.4	312.2	305.7	313.2	316.3	295.9	318.7	306.6	313.8	303.4	314.5	306.7	312.9	315.8	309.1	306.0	308.3	319.1	303.1
16	295.2	73.8	324.0	282.9	172.2	156.3	155.2	113.3	114.6	115.9	137.1	157.9	160.3	175.4	172.3	176.9	151.4	157.2	247.0	100.1	143.4	126.5	121.6	174.4
17	151.2	171.2	173.7	139.3	153.7	166.2	151.3	144.7	149.5	183.1	213.9	51.8	118.2	103.0	114.1	113.5	119.3	152.8	148.1	151.6	124.0	139.8	123.4	125.0
18	140.9	133.8	116.7	124.3	107.7	103.4	102.1	117.4	120.8	133.0	128.4	123.4	121.6	150.9	161.1	129.6	79.6	169.5	30.0	334.2	321.4	317.0	309.8	308.6
19	310.9	309.2	300.7	312.3	320.3	311.8	316.9	308.8	319.7	315.6	312.6	309.1	305.5	313.9	315.5	319.6	324.3	322.5	326.6	322.2	318.6	325.5	324.3	327.8
20	326.8	323.0	308.1	303.3	306.6	327.0	331.0	341.3	334.4	335.6	330.2	324.4	323.9	320.9	326.8	328.6	327.7	320.3	317.9	311.8	314.1	315.7	317.8	307.5
21	313.8	315.8	328.8	327.7	329.3	331.1	331.2	328.3	321.0	318.5	324.2	324.2	318.1	318.5	314.0	317.2	325.8	318.9	320.2	314.3	319.3	315.6	310.2	311.4
22	322.3	316.3	306.3	309.0	326.6	336.4	315.2	312.9	311.1	313.4	312.2	316.2	305.9	308.1	314.6	317.4	313.7	298.6	300.7	300.5	305.4	302.2	308.9	316.4
23	311.7	316.8	327.6	311.1	308.6	311.7	308.1	311.1	313.4	312.2	316.2	305.9	308.1	314.6	317.4	313.7	298.6	300.7	300.5	305.4	302.2	308.9	316.4	311.2
24	312.0	307.1	305.3	309.8	304.1	306.4	316.4	313.7	310.8	314.1	316.2	319.2	329.7	329.0	329.3	331.1	328.7	327.7	319.0	317.5	314.3	320.1	328.9	332.8
25	335.6	342.4	335.5	328.4	325.6	321.4	320.7	305.8	309.1	314.3	325.2	323.0	311.2	312.0	316.6	305.7	327.0	318.6	325.1	317.9	316.0	317.3	314.8	308.9
26	301.3	306.9	306.8	304.7	309.6	316.1	328.7	319.9	311.5	318.6	320.8	326.7	329.9	310.1	312.1	308.3	314.8	316.5	321.0	322.3	310.8	313.8	319.4	316.3
27	317.5	325.2	327.7	321.5	327.6	324.5	333.2	325.4	319.0	311.8	316.9	329.0	303.6	304.0	317.8	310.8	310.9	307.8	317.3	322.0	318.3	314.0	314.7	316.8
28	318.2	307.6	307.6	309.2	315.6	312.0	314.3	311.6	329.2	313.0	319.0	317.7	314.9	299.7	308.9	325.6	319.0	328.1	327.9	310.3	320.9	317.8	315.1	307.8

Total Hours in Month 672

Hours Data Available 534

Data Recovery 79.5%

HCG, Inc.

March 2007

Data Recovery 100.0%

HCG, Inc.

Pebble I Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

Day	April												2007											
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	313.8	311.9	310.0	306.5	314.0	306.1	304.6	307.9	307.7	314.4	313.5	318.8	311.3	308.0	306.8	292.8	324.6	38.2	125.7	111.9	144.0	121.6	138.5	157.9
2	159.8	152.3	148.2	154.0	146.4	138.3	140.6	131.2	125.3	120.5	120.5	121.5	123.2	122.7	125.7	126.2	126.5	127.6	125.7	127.7	129.0	123.3	119.1	119.6
3	120.9	118.3	120.3	116.5	118.8	121.0	121.4	122.2	125.4	126.7	120.4	117.6	118.9	118.7	122.6	119.1	120.1	122.3	123.8	124.0	113.4	118.3	121.4	119.1
4	118.3	116.4	121.1	108.1	91.3	95.2	98.5	98.6	101.7	110.2	105.0	116.8	116.3	115.8	121.8	122.9	117.1	116.5	101.9	96.9	94.0	98.0	105.9	125.7
5	115.5	44.2	42.5	89.5	44.0	72.2	81.6	60.5	54.7	37.6	50.7	57.9	63.4	58.7	56.9	54.9	57.1	109.6	108.1	110.5	116.9	115.0	111.3	112.1
6	115.9	117.3	118.3	115.6	119.4	115.8	116.8	104.5	105.7	92.6	53.8	53.8	53.6	53.7	55.1	43.0	38.5	27.8	32.9	39.7	357.1	355.0	10.2	45.0
7	55.6	52.3	133.3	179.9	157.3	129.5	119.5	127.1	121.3	118.0	120.8	120.5	121.0	122.0	120.4	117.8	117.9	122.2	125.0	111.0	118.4	108.4	92.4	89.0
8	56.4	56.0	52.6	48.6	47.7	43.7	40.2	34.9	32.4	32.4	41.4	39.0	52.8	53.1	54.1	56.0	61.4	94.1	148.1	95.9	130.2	106.8	104.3	132.2
9	122.8	111.5	125.6	111.4	96.0	99.1	68.8	95.4	86.2	110.2	120.3	112.6	107.0	115.6	119.4	120.6	123.9	121.7	125.8	124.1	123.1	123.9	122.4	125.9
10	133.5	130.7	134.0	135.5	143.6	152.5	140.6	131.2	140.4	140.2	125.1	130.4	131.5	143.6	143.1	137.9	133.5	128.3	127.1	132.0	133.8	138.9	141.9	143.1
11	148.4	155.9	145.8	142.9	129.0	130.2	126.8	131.5	129.9	126.5	139.7	123.4	120.2	132.5	135.4	138.4	130.5	132.7	138.6	139.7	135.0	117.8	104.7	115.4
12	110.4	104.3	96.7	43.8	354.6	331.1	315.1	322.0	321.4	309.1	303.9	297.6	308.9	277.3	262.3	260.5	284.8	287.9	291.9	299.5	301.0	299.4	312.9	309.0
13	309.5	312.9	312.6	309.2	309.1	314.7	307.1	310.5	312.0	311.2	306.0	330.7	329.4	322.2	326.6	339.2	339.8	306.5	309.8	291.1	338.5	332.8	3.6	313.5
14	314.2	301.1	298.9	305.0	321.1	351.7	102.7	95.0	126.8	136.0	120.6	140.2	135.7	138.5	135.3	139.0	142.1	145.7	141.4	131.8	130.7	130.6	115.9	111.2
15	115.3	106.1	115.0	113.4	111.9	112.6	110.9	113.3	110.1	108.0	107.4	107.6	106.0	105.2	110.0	114.6	134.3	177.0	234.7	278.2	294.9	306.0	278.4	298.7
16	296.0	295.1	302.8	307.7	302.9	307.1	310.3	314.0	311.8	309.7	298.8	306.6	265.9	263.3	233.5	229.4	234.4	225.0	222.0	224.0	211.9	187.3	158.2	136.4
17	143.3	135.8	141.8	122.2	132.1	109.3	119.3	117.2	121.3	121.6	118.5	119.1	114.2	114.4	113.8	114.1	114.3	115.2	115.7	112.3	113.2	112.0	114.0	115.5
18	114.8	116.3	115.0	117.1	115.5	115.5	117.2	117.2	117.9	116.3	115.5	116.0	120.7	123.6	123.6	125.2	128.1	161.9	172.1	172.6	153.3	131.2	343.5	329.8
19	331.7	15.8	124.4	133.8	138.3	117.5	118.3	124.0	125.2	119.9	119.9	121.8	122.9	120.4	122.7	124.8	125.7	125.7	123.5	126.3	116.0	114.2	114.0	111.3
20	116.8	118.5	118.2	116.3	115.1	116.0	89.4	96.8	101.8	99.1	96.0	110.4	113.3	112.9	116.5	118.1	118.7	116.7	120.5	120.8	127.6	131.1	131.3	116.9
21	113.4	109.3	109.0	117.8	112.0	109.7	105.1	113.1	117.7	104.6	122.1	125.6	119.9	115.7	111.3	118.9	117.1	122.5	123.3	126.1	121.7	124.6	118.7	113.5
22	116.6	112.3	113.0	110.1	106.0	112.5	105.0	104.8	118.2	109.1	114.6	110.3	110.1	99.3	88.2	96.0	89.1	92.9	82.2	77.8	74.2	73.8	71.5	94.5
23	99.8	91.8	91.6	91.4	77.4	59.1	60.6	77.3	67.5	60.5	58.3	51.8	63.7	136.6	150.6	305.8	168.5	138.2	142.4	136.0	117.1	83.9	139.2	116.9
24	114.2	118.5	113.3	97.3	111.9	108.5	120.3	121.7	113.5	106.9	108.6	109.5	114.5	84.8	97.1	222.4	164.1	176.7	175.7	163.2	161.8	156.6	118.6	99.2
25	113.0	102.5	91.5	101.4	109.3	113.6	106.3	100.2	97.8	100.6	105.9	103.1	113.7	109.0	120.1	122.6	126.4	127.4	124.9	131.9	117.6	292.0	46.4	99.8
26	81.0	72.6	69.2	73.7	77.7	51.2	45.6	356.8	329.4	327.4	338.4	342.5	338.0	331.0	353.9	342.8	344.4	333.7	333.0	326.4	320.0	304.0	301.1	303.2
27	308.2	309.6	300.8	219.8	171.4	176.9	183.8	163.6	157.2	164.1	153.2	140.6	142.5	149.7	184.4	184.3	181.5	187.8	220.8	230.3	229.0	204.0	204.5	211.0
28	225.2	172.1	205.1	186.7	130.5	137.5	149.8	163.0	152.1	124.6	131.5	120.7	124.5	138.9	147.1	139.5	136.1	135.4	145.2	134.2	138.0	136.4	143.3	154.5
29	151.2	137.6	127.1	118.6	119.4	121.8	123.6	111.1	103.8	107.1	114.0	120.4	113.2	107.5	110.8	109.7	110.1	117.0	125.0	129.0	128.2	107.2	149.4	176.2
30	166.4	164.8	161.9	159.3	122.5	44.3	345.4	339.2	313.7	340.0	50.4	57.4	59.6	50.1	51.9	56.3	54.5	134.8	177.0	198.2	210.7	212.8	219.1	252.0

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	314.7	302.3	192.1	144.6	293.8	151.6	197.8	129.8	151.3	140.9	157.8	228.9	267.6	347.2				152.1	138.8	149.3	170.9	309.7	315.3	224.9
2	202.1	222.8	181.8	243.9	92.9	283.4	302.5	305.6	317.9	303.9	322.4	181.3	181.4	130.2	99.9	124.7	138.1	136.8	128.6	131.4	131.0	129.4	131.2	135.2
3	119.1	133.7	125.2	128.5	147.2	156.6	178.7	198.6	229.0	310.9	326.2	344.6	346.8	331.0	270.3	260.4	271.6	323.2	291.7	254.7	240.2	271.0	244.3	296.3
4	310.2	314.5	292.2	303.3	311.9	318.6	315.0	267.9	322.6	31.7	298.3	267.8	264.9	256.5	227.3	236.1	238.1	260.1	287.3	87.8	144.2	144.1	263.9	277.1
5	292.7	315.1	316.4	315.0	313.2	319.4	314.7	319.6	304.5	311.4	312.9	309.1	305.5	307.0	289.4	283.4	303.8	293.3	287.5	288.4	289.8	278.3	273.0	278.6
6	291.5	294.4	304.4	302.1	305.2	302.8	309.9	308.8	292.5	299.8	308.7	299.0	299.4	308.1	313.8	306.6	308.5	310.0	312.9	310.5	305.8	306.2	304.3	303.3
7	303.8	303.3	305.6	303.4	306.5	315.1	318.5	316.2	313.5	300.5	312.6	302.1	314.1	299.6	313.3	302.4	327.6	329.7	321.6	247.7	249.5	256.6	268.5	271.9
8	267.6	107.0	98.0	306.5	133.2	137.4	123.3	124.6	126.5	211.9	330.3	358.0	267.5	278.2	218.7	217.3	224.0	228.7	231.4	218.5	216.5	198.4	200.8	185.9
9	226.5	141.5	133.1	238.5	69.6	107.4	105.4	107.0	104.9	111.7	111.7	128.2	154.5	138.4	142.2	136.3	139.9	145.5	147.9	147.5	144.4	172.4	177.5	173.4
10	164.3	175.3	184.6	196.5	188.6	162.1	161.9	170.3	138.2	146.9	134.0	137.7	156.8	181.4	189.2	167.5	159.7	154.2	155.9	148.4	142.2	142.5	146.4	126.4
11	126.7	114.5	126.3	117.3	125.9	124.7	117.3	111.5	112.6	121.2	124.3	124.3	129.1	123.9	132.5	131.5	134.3	135.6	142.8	145.3	141.7	145.1	147.9	144.2
12	151.3	159.1	156.0	146.8	151.2	136.7	131.1	133.4	129.2	122.6	122.2	124.7	127.2	139.3	140.3	134.2	133.2	128.3	134.2	135.9	132.5	145.3	152.3	134.3
13	130.8	123.7	126.1	132.1	129.3	123.9	118.8	119.2	117.2	121.7	111.2	119.3	119.4	120.2	117.2	113.3	112.3	108.6	104.7	102.1	101.7	96.9	86.3	77.6
14	46.9	81.4	85.5	75.3	59.1	55.2	13.6	15.7	14.8	37.2	63.2	72.6	72.8	108.0	151.4	130.6	134.8	127.5	129.5	130.0	125.8	127.0	134.2	125.3
15	111.7	116.1	116.2	131.0	122.4	113.4	102.1	103.7	97.4	103.3	101.8	121.0	123.9	125.5	148.6	144.5	156.0	149.2	187.0	179.8	304.8	291.3	308.1	311.4
16	317.7	333.2	328.4	314.7	318.8	324.6	327.2	323.7	326.4	333.1	335.3	40.6	26.6	69.9	85.2	137.8	147.2	161.0	161.1	170.9	171.8	170.6	156.6	157.0
17	158.9	161.6	165.1	171.9	169.7	166.8	169.1	155.1	150.0	154.4	142.6	127.1	131.1	140.5	153.6	154.7	154.7	152.5	150.2	145.6	136.5	145.4	146.2	143.2
18	149.8	148.3	138.3	137.4	143.7	148.7	145.6	147.7	154.0	147.8	147.7	140.2	137.6	130.8	165.0	158.6	155.0	200.4	205.5	227.4	218.3	252.4	262.1	300.3
19	278.3	289.9	291.8	297.4	310.7	312.1	298.7	303.3	300.5	327.3	284.4	263.7	265.1	245.8	224.1	243.2	231.5	235.9	237.1	242.4	237.9	232.9	265.3	260.7
20	293.5	251.0	253.1	195.7	83.5	250.6	277.4	251.2	33.9	341.4	8.7	347.5	339.4	294.7	272.8	236.1	222.8	217.5	216.2	224.1	231.9	233.3	233.6	233.3
21	247.3	283.2	261.8	185.5	155.3	221.6	298.4	302.0	306.5	326.7	359.1	149.0	127.7	147.2	138.1	119.6	127.1	133.1	134.3	127.6	132.2	133.0	122.3	126.3
22	132.4	133.3	125.7	125.2	132.5	110.0	98.8	108.1	96.6	94.3	110.0	131.8	130.8	126.9	144.0	152.3	135.5	131.5	135.6	154.0	170.6	153.7	151.9	149.2
23	133.0	142.9	28.9	80.7	93.7	82.2	103.2	97.7	108.1	114.9	130.2	122.5	127.3	129.3	123.6	127.1	133.6	123.4	119.5	122.4	125.9	128.6	129.9	132.0
24	124.9	131.9	128.4	128.8	128.0	127.7	134.2	133.5	129.6	126.5	125.0	124.0	140.9	143.5	147.4	139.2	147.1	148.2	137.8	128.8	127.1	101.6	103.3	124.5
25	122.0	119.1	117.5	100.5	105.7	113.9	108.7	115.2	106.9	106.4	111.6	152.8	162.8	156.7	153.3	157.8	162.8	159.7	143.7	141.2	135.9	228.0	291.8	303.9
26	305.1	322.8	330.6	184.8	177.2	164.9	151.5	125.9	150.9	158.3	154.4	136.4	158.1	161.3	162.4	153.2	149.3	143.7	134.5	139.1	129.6	131.5	128.5	136.1
27	142.4	151.6	151.5	160.0	158.8	155.8	151.4	132.4	148.5	136.7	133.4	136.6	137.3	141.5	139.3	140.5	142.0	144.5	141.8	144.6	145.2	150.2	163.6	153.4
28	161.5	160.6	149.0	132.6	146.2	137.8	127.5	132.7	120.1	125.1	120.4	129.8	131.4	132.6	122.2	136.3	154.1	149.1	142.1	145.8	147.0	144.6	150.4	161.5
29	175.6	184.4	219.6	291.8	309.7	305.4	306.3	312.6	328.9	358.0	5.2	359.2	47.0	52.3	2.3	34.5	165.2	160.6	175.6	167.5	159.7	175.5	177.8	198.8
30	187.4	233.4	161.0	294.4	306.4	322.1	311.3	299.2	317.4	318.2	89.3	107.8	119.7	125.7	122.3	125.6	141.5	150.6	147.7	139.1	141.4	144.0	147.1	121.2
31	147.7	129.9	114.5	102.6	102.7	111.8	113.1	110.7	129.8	137.7	133.9	125.6	127.3	119.5	92.5	68.3	92.3	96.9	113.0	121.2	142.1	129.4	118.5	115.4

Total Hours in Month 744 Hours Data Available 741 Data Recovery 99.6%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	110.4	102.0	104.7	125.7	92.1	94.5	98.7	131.8	133.7	116.8	115.4	125.6	131.2	123.5	115.8	132.7	138.0	137.9	138.5	120.8	123.9	124.5	128.3	121.1
2	113.6	113.2	122.0	136.9	135.0	139.1	130.8	123.7	120.7	128.0	134.7	126.5	122.7	126.8	113.5	132.8	139.3	142.9	143.7	142.0	141.1	137.1	138.6	164.2
3	195.9	194.0	111.1	108.3	130.8	153.3	164.0	177.3	133.2	123.1	125.7	120.1	117.8	126.2	132.9	66.6	147.8	146.0	46.6	298.0	168.4	245.9	305.2	310.4
4	312.5	319.3	329.7	327.2	314.0	314.0	313.7	322.8	329.2	332.7	325.2	347.1	349.7	349.2	344.2	18.0	179.2	242.4	174.6	174.5	165.7	159.3	168.8	165.5
5	157.8	156.0	153.0	149.3	151.1	150.5	142.2	107.4	117.8	120.0	128.0	130.6	124.8	122.2	118.7	118.5	116.7	115.8	121.7	120.7	118.7	118.8	121.8	127.5
6	126.9	145.0	133.7	127.0	127.6	136.3	108.4	111.6	93.2	52.1	46.9	81.8	114.1	162.5	167.2	163.9	167.2	180.9	195.2	181.9	180.5	182.5	177.6	176.9
7	179.8	157.4	116.2	325.4	338.3	47.5	64.6	83.3	75.1	96.4	79.4	83.6	90.6	109.0	101.3	122.3	118.7	119.9	118.8	115.9	111.9	115.5	131.5	114.5
8	108.4	111.9	104.3	113.0	117.7	115.6	124.2	122.2	125.3	133.0	135.4	125.2	97.9	103.1	118.4	125.8	120.1	115.4	123.6	124.6	126.2	131.0	142.6	148.6
9	125.9	142.1	147.6	165.9	173.0	207.1	279.6	311.5	323.3	339.1	330.2	3.8	0.3	347.9	5.3	354.4	3.5	86.3	27.3	341.6	339.6	320.1	309.8	308.1
10	309.4	307.9	314.3	314.8	319.2	315.5	306.2	306.5	312.2	321.7	325.6	325.1	322.5	322.6	322.9	318.6	319.4	316.8	316.0	318.5	326.3	92.6	104.1	118.5
11	145.8	136.7	158.6	170.6	194.9	191.6	149.2	139.1	126.5	127.1	155.2	158.1	154.9	154.6	160.6	162.1	158.0	153.7	154.3	143.7	145.5	147.7	149.0	150.8
12	158.6	158.4	160.7	161.9	151.4	143.3	155.3	138.0	147.7	149.9	145.1	147.3	155.8	159.9	156.1	165.5	163.0	154.6	156.7	165.9	160.5	174.0	168.5	186.9
13	199.5	205.9	251.7	262.9	281.0	323.7	316.3	317.2	329.6	322.5	327.7	312.1	331.9	268.5	284.3	286.2	305.3	246.5	218.6	270.2	271.3	269.3	284.6	293.3
14	286.3	285.6	299.6	309.3	295.4	301.6	308.1	307.9	300.4	309.9	331.6	327.9	358.3	319.3	299.1	260.1	262.7	206.3	262.7	277.1	274.8	269.0	278.7	299.4
15	310.2	309.9	321.7	315.3	322.3	318.0	327.0	322.3	321.4	327.8	334.1	338.3	343.6	349.2	340.5	329.5	339.8	322.0	317.9	327.7	323.5	324.0	322.8	308.0
16	309.6	306.3	316.2	319.4	319.5	318.1	320.4	313.7	322.9	317.5	306.5	304.9	298.1	293.8	290.4	293.1	291.4	282.7	273.7	259.5	239.0	233.8	237.6	253.1
17	253.3	248.7	227.1	226.3	230.7	232.7	243.1	237.6	260.0	277.5	309.4	321.2	338.2	309.3	338.3	347.3	327.3	344.0	349.4	340.6	318.3	335.5	304.2	303.5
18	301.9	322.8	302.1	291.4	308.7	310.3	310.4	318.1	326.1	314.5	322.1	354.1	329.9	303.4	11.5	234.2	140.6	217.2	173.0	171.4	214.1	146.1	265.8	304.7
19	305.7	310.7	316.3	318.9	306.3	308.3	309.4	319.0	325.1	331.6	330.3	339.4	334.6	339.6	341.9	336.6	337.4	342.6	333.2	323.6	331.9	328.3	325.6	315.9
20	311.8	319.9	318.0	315.8	312.6	309.5	311.0	310.2	319.1	325.6	322.5	325.4	329.4	332.7	331.7	335.5	324.9	321.3	333.7	323.2	311.1	305.0	305.9	298.9
21	306.6	317.9	315.6	308.9	300.2	308.8	303.7	306.8	309.7	310.9	313.9	312.4	293.4	300.4	300.2	299.7	294.2	292.6	288.7	284.7	259.4	244.7	252.3	246.3
22	215.4	99.9	114.6	355.8	148.1	151.8	190.1	204.6	196.5	170.1	170.8	175.0	169.7	164.4	159.6	178.8	168.0	161.2	171.6	158.5	157.0	156.4	153.4	156.5
23	145.4	136.3	135.2	127.0	126.8	125.9	123.2	120.6	117.1	114.9	118.2	120.0	121.5	120.6	120.0	116.3	112.4	114.1	113.3	114.1	112.2	114.5	114.8	115.3
24	114.0	116.7	117.7	121.2	123.0	124.4	120.0	126.9	122.2	116.1	114.1	112.5	122.9	123.7	121.6	125.5	136.8	130.8	126.5	127.0	123.4	124.3	126.2	125.7
25	128.8	134.5	131.9	125.5	123.4	128.6	133.1	134.0	136.4	141.3	131.0	126.2	122.9	123.8	128.4	122.2	123.4	130.2	129.0	128.1	127.0	131.6	132.4	132.0
26	130.9	145.1	151.0	148.6	127.9	130.9	137.7	140.6	141.5	128.0	136.2	149.5	150.5	144.0	126.2	140.1	151.1	153.4	222.9	229.1	268.9	267.2	268.5	271.5
27	288.2	291.6	302.0	305.1	311.2	319.3	315.8	306.3	310.1	331.9	0.8	123.7	148.4	151.8	151.9	156.5	159.1	168.5	162.9	176.8	198.9	226.1	241.6	138.2
28	74.7	309.0	302.9	267.1	261.9	184.4	273.2	263.8	102.2	119.5	144.3	123.8	143.0	147.4	146.2	135.1	153.6	158.3	170.9	124.0	125.7	128.9	132.1	131.9
29	124.8	131.7	149.0	146.1	136.7	148.8	143.8	142.7	118.7	127.9	153.6	148.0	155.7	151.9	163.2	193.0	215.5	226.1	261.3	258.8	259.4	264.9	280.2	291.5
30	285.1	278.9	262.2	238.1	252.2	182.2	209.6	220.0	227.6	188.0	175.2	181.1	171.9	184.6	175.9	164.1	178.7	158.0	155.8	149.8	141.0	155.2	152.4	151.3

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	162.6	144.4	153.7	165.0	258.3	322.8	317.8	304.6	314.1	315.5	329.7	338.2	326.8	314.6	291.3	291.3	290.4	291.3	283.7	282.7	284.1	281.4	288.6	88.0
2	120.7	148.4	174.6	174.1	156.1	145.2	192.5	134.1	3.4	312.6	304.8	306.2	316.3	318.6	316.6	312.0	329.4	321.3	324.0	324.3	324.8	312.8	319.8	307.0
3	298.1	302.2	275.6	127.0	160.9	172.5	170.4	164.4	165.6	166.2	173.4	161.9	159.0	157.7	151.4	160.5	153.3	164.3	162.0	164.1	168.8	174.0	188.3	176.6
4	171.0	162.6	163.5	163.0	157.1	164.4	155.7	161.0	161.3	159.2	143.8	143.4	130.5	132.8	130.2	128.1	126.7	122.2	126.9	131.9	137.5	155.4	160.9	159.4
5	162.9	161.1	162.1	160.6	168.3	189.5	161.0	170.0	276.8	314.8	309.5	307.2	302.2	316.3	318.7	302.3	304.8	297.6	27.3	163.1	161.6	158.9	159.9	149.5
6	145.1	138.0	142.2	140.6	143.0	148.2	138.5	126.9	118.4	123.6	155.1	152.2	132.6	133.6	149.3	151.6	143.5	153.4	150.6	160.8	173.2	192.1	350.0	9.2
7	164.2	158.8	144.9	178.7	155.4	162.9	196.2	167.9	256.4	319.3	320.3	1.3	332.4	355.6	293.8	318.7	313.1	302.7	310.9	222.9	182.8	133.4	115.0	131.7
8	134.9	137.7	207.3	349.9	146.2	154.6	138.7	125.6	123.8	101.1	114.8	157.1	148.5	158.9	148.4	151.5	153.6	139.8	138.9	126.0	128.5	150.3	157.7	157.2
9	142.1	140.1	137.5	136.1	139.8	148.4	143.7	147.6	132.2	116.3	104.5	91.3	104.1	91.6	108.5	93.3	85.9	163.0	218.6	188.5	201.2	244.9	285.3	306.9
10	300.9	305.8	308.0	309.0	326.6	291.7	281.5	306.4	317.6	353.1	2.2	2.3	323.5	311.3	171.9	192.3	160.7	153.1	160.1	163.2	166.0	155.7	158.8	157.4
11	148.3	153.4	160.4	147.1	147.7	141.0	151.7	150.3	147.2	145.4	145.7	140.9	146.2	147.3	142.4	148.4	160.8	162.3	159.1	162.9	161.1	164.4	170.0	153.2
12	157.5	133.2	152.5	166.4	257.7	308.7	309.8	318.0	323.7	331.5	320.3	320.4	325.7	329.2	331.6	176.5	183.9	158.4	163.5	154.8	158.0	161.9	160.7	162.7
13	155.4	162.7	165.9	161.1	164.9	155.9	174.2	162.6	158.4	148.8	133.3	149.1	157.3	155.2	155.3	158.3	156.3	164.6	166.0	174.9	180.1	171.8	165.6	166.1
14	163.2	177.5	174.9	174.1	168.3	166.0	155.9	145.5	158.4	157.4	145.0	157.6	155.9	158.3	153.8	158.8	150.7	151.1	156.8	160.6	157.5	160.9	158.9	166.9
15	189.9	185.3	197.5	189.7	178.1	186.3	128.7	161.9	319.7	341.9	325.9	342.0	343.5	341.8	252.6	260.0	254.3	264.5	262.5	259.2	265.7	270.3	255.2	
16	261.4	291.8	293.4	297.8	316.2	307.7	312.6	308.0	309.1	309.5	315.8	322.3	324.3	331.0	328.0	326.7	310.1	312.8	310.6	303.4	302.1	302.0	306.5	318.2
17	315.5	313.5	304.8	308.6	310.4	308.6	311.8	315.9	314.0	310.8	336.8	350.2	15.0	60.8	149.9	158.7	152.6	152.2	159.1	160.0	154.7	159.6	150.6	149.2
18	146.9	144.1	141.7	137.7	139.5	140.7	126.7	141.8	151.6	130.6	140.0	19.2	3.9	355.1	15.0	154.8	165.4	168.7	161.8	168.4	158.4	179.2	239.7	270.1
19	313.6	318.8	317.2	313.6	311.0	313.8	311.8	318.1	310.3	308.5	311.4	317.7	323.0	309.2	314.1	66.3	142.3	202.6	238.7	268.5	259.0	241.1	255.1	248.9
20	304.7	268.6	247.1	302.7	158.5	332.0	197.1	296.2	258.8	330.8	110.8	283.1	323.7	283.3	293.4	52.0	53.7	246.7	289.0	280.3	285.1	266.0	262.9	255.3
21	236.1	182.8	156.2	163.9	214.0	225.3	228.9	250.9	165.1	221.0	227.1	196.0	209.2	203.9	208.0	218.4	218.0	222.3	219.8	213.0	207.7	204.2	209.8	200.1
22	181.4	185.2	180.7	173.2	176.5	167.7	177.5	181.1	176.6	181.4	177.1	176.7	183.4	176.3	176.3	162.4	154.0	145.2	146.5	145.9	141.1	124.1	129.9	135.9
23	135.5	137.8	140.3	129.1	116.4	185.2	174.9	130.2	122.8	143.5	154.5	158.2	146.5	141.4	133.4	122.3	119.5	120.1	122.7	123.5	121.2	118.4	120.7	129.7
24	124.4	123.0	114.0	116.0	117.9	120.6	126.9	115.8	105.2	104.5	102.2	98.8	100.4	84.7	82.3	69.7	78.7	83.3	89.3	72.6	86.3	83.1	66.5	67.1
25	65.0	65.1	62.7	77.6	75.5	57.0	107.4	60.4	60.5	57.6	60.2	58.6	68.1	59.5	65.1	77.4	71.2	89.2	85.6	92.2	96.6	92.9	108.3	205.2
26	209.7	252.4	218.6	254.3	312.8	304.2	306.6	304.9	313.8	314.1	319.9	323.4	338.6	345.2	359.3	5.9	308.7	257.3	268.7	270.1	274.8	277.9	261.7	296.9
27	320.9	305.1	300.8	301.2	316.9	314.7	314.9	315.9	311.7	314.8	327.2	341.1	339.0	327.6	319.3	320.8	318.8	313.4	341.3	338.5	358.3	325.4	310.7	322.0
28	305.5	307.6	306.0	305.9	312.9	304.5	308.5	318.1	309.6	311.8	306.0	306.8	309.5	304.4	299.4	299.4	299.4	291.9	286.7	275.5	274.7	285.3	273.0	287.2
29	314.9	317.1	322.1	307.8	313.0	311.7	313.5	312.3	318.5	313.2	324.7	326.2	325.2	323.7	318.8	313.2	316.3	341.0	327.0	326.7	295.5	311.1	299.4	298.9
30	298.1	300.8	308.6	301.3	312.2	323.3	315.6	302.8	307.4	323.0	124.6	112.8	127.6	189.3	161.4	228.0	220.3	223.6	225.2	218.4	216.3	184.0	170.1	206.3
31	210.6	203.7	201.9	164.3	158.3	163.0	160.5	147.4	149.3	149.4	150.7	152.5	156.1	145.7	149.3	150.5	143.6	148.2	131.1	126.4	119.6	123.0	124.3	123.3

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	119.6	118.9	122.9	118.9	118.2	117.0	127.9	121.4	119.2	121.1	122.9	124.0	127.1	126.1	124.0	122.4	127.6	128.5	122.3	122.9	119.7	117.9	117.7	115.2
2	113.5	114.4	119.6	117.1	115.3	115.2	116.0	117.8	119.6	118.7	117.3	118.9	117.2	118.6	118.9	117.4	120.3	123.9	118.7	114.8	113.0	114.9	112.6	114.4
3	129.9	132.7	132.0	125.3	122.3	124.8	124.9	125.0	118.9	117.5	128.6	133.5	128.9	126.3	128.8	127.4	126.3	126.5	127.6	128.6	124.9	119.7	123.9	120.9
4	120.8	121.4	118.4	117.1	118.9	120.4	118.3	119.8	122.4	123.6	126.0	130.2	133.6	137.0	140.5	140.8	143.5	147.9	142.2	137.6	138.4	138.7	139.1	133.8
5	137.6	138.7	138.5	133.8	137.5	138.4	151.9	159.0	163.9	199.8	202.2	193.9	198.0	204.2	204.1	200.2	203.7	214.3	231.2	233.4	233.3	237.4	246.1	256.3
6	260.0	269.4	267.0	267.6	271.1	301.3	293.0	286.9	301.3	310.3	306.7	309.6	307.5	305.2	310.5	311.9	316.0	313.6	319.3	312.4	308.0	310.0	309.7	303.4
7	305.7	303.6	312.7	312.3	312.2	319.7	315.0	323.5	333.2	334.7	338.1	339.6	341.3	337.5	335.8	337.8	333.8	334.0	337.9	334.0	330.4	326.1	326.4	314.9
8	310.2	324.0	319.9	311.5	322.4	307.0	314.3	321.0	327.1	327.2	324.3	326.3	326.8	332.9	328.9	328.7	326.4	309.5	327.4	322.3	321.0	321.6	309.6	308.3
9	314.7	316.5	313.0	323.1	314.6	321.7	309.8	319.3	316.3	318.9	352.3	344.6	349.0	327.0	294.3	308.9	250.1	181.8	187.9	185.2	198.1	202.6	199.1	177.5
10	148.9	169.6	172.4	168.3	165.4	167.8	153.8	149.4	127.8	111.8	117.1	117.2	150.4	155.7	146.7	157.8	156.0	161.4	162.2	165.5	171.6	176.3	166.5	162.5
11	155.7	139.7	53.9	306.8	316.1	340.9	327.8	327.0	314.1	319.5	314.8	332.2	327.0	134.3	166.9	180.4	188.1	223.3	260.8	266.4	232.4	200.4	166.0	187.6
12	191.4	198.3	221.0	196.7	180.3	155.0	129.9	165.2	165.7	187.3	178.1	262.6	297.5	255.7	162.3	176.3	195.5	225.9	219.4	244.3	256.6	266.4	269.6	274.1
13	228.1	172.1	126.0	190.9	215.7	171.6	157.3	156.7	121.3	114.8	121.2	195.1	215.5	214.9	219.9	214.2	190.8	219.1	217.8	214.9	194.9	237.6	253.3	232.3
14	222.9	232.1	231.7	233.4	254.1	281.7	160.3	232.9	223.9	219.9	225.9	217.6	217.9	203.7	216.8	193.8	172.8	232.3	228.8	275.1	263.2	342.9	348.1	327.8
15	311.9	305.9	303.9	312.4	307.6	312.7	316.6	313.1	317.4	323.7	318.5	322.8	325.9	338.1	327.8	333.6	329.9	324.5	331.8	338.4	331.7	325.7	325.8	303.8
16	307.4	311.9	304.6	289.9	359.3	64.4	31.4	322.5	304.3	320.0	61.2	315.9	325.4	353.2	334.1	17.9	342.1	97.5	171.0	165.7	170.4	161.0	165.6	158.7
17	160.0	164.8	159.6	165.2	155.9	147.7	150.7	158.0	144.1	134.5	121.6	127.6	134.9	128.2	127.3	115.4	124.0	126.1	124.8	124.6	122.7	123.8	121.3	124.0
18	120.8	115.8	114.0	115.7	117.3	116.8	116.1	117.5	118.9	119.4	116.7	114.6	115.0	112.7	110.6	110.7	113.6	112.7	112.3	113.5	115.0	114.5	114.5	112.6
19	115.6	117.6	119.8	118.7	119.9	121.1	114.7	111.8	116.8	117.6	114.1	120.3	121.3	127.6	126.8	127.0	125.8	128.5	131.5	133.3	130.4	134.1	128.9	121.8
20	116.7	123.6	129.3	123.4	117.0	120.9	122.8	120.6	120.4	124.4	112.7	117.6	118.9	118.3	121.1	121.3	118.7	122.7	127.9	124.1	129.1	132.7	130.2	117.3
21	118.1	122.8	124.5	127.0	128.7	121.9	118.8	114.2	105.5	108.7	108.4	119.1	125.8	121.3	125.8	123.0	124.5	128.8	128.3	124.1	120.3	128.1	133.9	128.9
22	121.3	122.4	123.4	123.9	123.9	127.0	125.3	121.2	119.6	122.1	119.6	122.5	120.8	121.2	123.9	123.0	120.9	125.1	121.1	118.2	114.6	116.5	124.1	113.8
23	107.2	99.2	103.4	94.7	52.8	37.0	67.5	202.3	298.6	312.1	310.4	326.6	320.6	324.5	322.9	324.0	327.9	327.0	325.6	317.4	306.3	303.6	302.9	301.6
24	297.5	303.7	301.8	305.4	306.1	306.3	308.6	309.5	310.0	325.2	323.3	326.5	315.3	316.0	337.5	4.2	297.7	289.7	90.3	140.9	156.0	129.3	133.6	164.1
25	156.1	160.1	139.8	141.0	190.4	217.7	191.8	170.2	144.2	143.7	124.8	134.4	163.6	156.8	139.6	128.9	137.5	130.0	135.5	146.8	161.8	161.1	153.1	141.8
26	130.3	142.4	146.6	144.3	124.4	126.4	112.3	133.4	145.4	140.7	134.2	121.6	124.7	122.1	119.9	152.9	138.5	118.5	123.3	142.2	141.0	132.5	107.2	101.9
27	84.9	86.6	93.3	73.9	27.3	357.8	353.1	340.1	88.2	106.8	87.9	73.0	71.4	78.3	93.1	124.8	111.0	169.2	175.7	186.9	170.8	226.7	262.3	299.8
28	276.6	305.1	301.6	319.5	108.4	121.8	36.8	123.6	107.3	81.7	70.0	38.9	13.1	51.4	11.9	342.5	4.2	325.5	308.2	302.4	296.6	304.8	321.4	315.1
29	318.1	321.7	322.9	323.3	335.0	324.6	326.4	324.0	327.8	321.7	330.3	321.9	323.6	330.4	328.0	324.7	323.8	322.2	332.3	328.3	323.4	325.6	323.0	
30	321.0	327.1	319.0	310.2	304.0	308.3	308.1	314.4	318.2	321.6	323.0	344.9	348.1	346.9	355.2	343.5	343.4	335.9	343.1	353.4	351.1	299.1	317.8	311.6
31	306.6	306.3	302.0	315.1	314.6	308.9	307.5	312.0	310.7	313.4	311.2	312.6	315.5	319.6	321.5	359.4	145.1	310.9	234.1	159.9	90.2	323.3	319.1	288.9

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	262.7	315.8	139.3	203.3	131.5	147.2	124.6	128.3	163.6	169.3	168.2	179.0	171.2	157.1	155.7	149.7	147.5	148.3	151.0	171.3	172.2	175.8	171.9	174.8
2	168.1	162.3	162.4	162.0	162.7	161.1	154.4	165.8	160.2	185.1	197.5	207.1	191.9	271.7	23.6	145.2	155.5	126.4	124.9	135.0	149.6	149.5	149.3	148.9
3	148.6	148.3	148.3	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1	148.1
4	107.6	112.6	113.0	106.1	94.1	112.4	48.5	51.7	60.2	35.1	49.3	109.1	53.6	40.6	19.0	351.1	317.7	294.5	283.1	280.8	288.9	292.2	300.5	295.6
5	291.7	304.5	296.2	302.6	284.2	291.9	294.0	298.3	295.2	293.5	286.1	285.3	282.0	298.5	276.7	257.6	84.7	116.0	197.2	208.5	188.0	275.9	299.4	230.0
6	217.3	210.9	216.4	316.2	271.1	182.7	214.1	221.0	222.6	202.5	189.3	181.4	189.3	204.8	203.8	197.6	167.3	160.6	152.6	144.6	164.0	163.5	123.7	120.0
7	101.5	123.3	129.8	123.9	129.6	124.4	111.2	110.3	116.7	113.7	111.8	115.3	117.6	115.9	116.8	117.5	116.7	113.2	113.4	112.0	115.7	117.1	115.1	114.2
8	116.1	119.4	122.0	122.8	129.2	131.1	130.3	130.8	134.5	128.9	132.4	128.4	132.0	142.9	151.4	154.8	155.8	151.5	156.0	171.4	182.5	166.0	156.4	160.0
9	160.8	164.7	163.1	162.3	156.1	143.8	154.2	160.8	156.3	156.9	149.4	144.8	145.0	151.7	146.4	151.6	134.4	143.9	158.5	116.2	126.8	161.9	143.8	100.8
10	160.3	171.0	167.7	157.1	138.9	169.2	154.0	151.9	163.9	174.3	104.4	88.7	110.5	127.6	136.8	140.7	135.4	137.1	130.1	124.6	120.7	119.6	119.5	119.5
11	118.6	119.1	117.1	119.0	119.9	117.9	117.5	114.7	116.0	118.8	118.1	114.2	112.2	107.4	110.9	112.1	117.2	118.0	115.1	111.0	109.5	112.7	119.3	115.5
12	115.1	115.6	119.6	119.4	130.5	145.0	145.9	150.5	161.3	162.0	165.5	165.2	169.5	173.9	174.8	177.3	197.6	214.5	202.1	211.3	205.7	201.1	192.2	209.5
13	194.5	164.7	154.4	151.6	141.2	132.7	140.5	142.2	158.6	183.0	187.6	178.8	160.5	172.5	178.3	160.5	143.2	146.8	140.7	188.7	162.3	156.2	134.4	191.9
14	154.3	135.7	102.1	102.2	101.4	113.4	119.4	93.1	102.6	48.1	358.2	102.3	57.2	348.2	332.3	334.8	324.0	306.1	303.2	293.2	297.9	298.5	300.4	305.3
15	299.7	291.7	301.0	293.6	300.7	304.7	303.4	311.3	312.2	308.9	301.3	305.3	312.4	310.9	304.4	317.0	310.1	294.4	288.8	293.4	290.7	294.5	283.7	277.4
16	275.4	271.5	274.6	279.3	274.5	285.4	293.5	292.4	302.0	319.6	313.1	314.0	314.2	310.2	302.9	310.7	302.0	281.7	283.1	273.4	264.9	269.9	271.2	260.1
17	320.3	250.5	232.6	73.4	216.4	211.9	239.9	238.3	226.8	211.2	190.4	193.4	187.8	205.3	178.6	186.1	171.1	143.6	136.1	121.2	97.3	102.6	105.5	108.9
18	123.0	123.2	130.4	135.6	124.6	130.0	121.0	116.2	103.3	110.2	114.3	116.0	115.1	111.0	115.4	120.7	123.2	120.3	119.4	119.4	117.4	122.3	166.5	168.1
19	216.0	226.5	224.6	223.7	239.5	216.0	191.4	221.9	204.3	177.0	190.6	201.3	203.5	206.7	218.3	218.6	223.1	215.5	214.2	215.3	210.5	214.3	210.4	210.4
20	211.9	218.6	212.0	218.1	217.6	214.4	214.8	219.8	221.5	219.3	214.8	214.0	225.6	233.7	248.7	246.3	257.5	247.9	239.8	282.0	294.4	313.0	304.2	277.6
21	306.7	297.1	286.1	290.0	291.3	298.5	297.7	295.2	293.6	294.9	298.3	305.6	305.8	302.9	300.3	308.9	298.6	308.5	310.5	303.8	299.5	312.9	300.6	299.7
22	307.0	315.6	334.9	311.9	308.9	308.3	306.1	315.8	40.7	102.9	114.4	112.0	110.1	104.0	114.8	118.2	118.8	107.1	107.4	103.8	102.6	104.7	101.9	101.9
23	97.5	93.6	91.7	94.9	67.9	82.3	91.4	98.2	122.4	118.3	130.5	139.9	149.2	143.2	145.3	139.7	144.6	137.4	145.1	157.1	188.2	206.8	204.5	206.1
24	207.4	209.2	200.7	222.4	241.4	252.4	253.5	238.0	234.2	234.9	239.6	233.8	232.1	216.4	219.8	191.1	184.8	182.4	218.7	199.3	113.2	111.7	154.3	163.3
25	255.2	258.9	236.3	231.1	213.2	219.6	230.7	236.3	237.8	248.0	244.0	218.1	228.1	230.7	219.9	212.3	215.4	223.5	227.5	218.9	232.2	234.4	223.6	220.7
26	225.2	227.6	216.1	227.2	232.5	231.4	256.4	273.4	277.4	193.6	231.0	264.3	255.8	225.4	251.5	262.5	116.0	287.7	270.9	266.1	272.2	281.4	267.5	265.3
27	272.1	270.4	273.9	288.3	294.2	247.5	269.6	183.5	161.0	138.7	173.6	123.9	134.8	140.5	140.4	147.2	127.9	119.4	116.4	124.3	121.2	118.6	117.3	111.3
28	111.5	113.5	109.6	110.7	112.8	111.2	118.6	127.3	131.0	133.0	138.8	132.9	127.0	126.4	124.7	101.6	100.0	88.7	90.3	91.2	91.3	49.3	6.3	319.1
29	312.2	304.7	301.1	300.6	304.1	303.7	301.3	294.8	294.0	299.4	310.9	301.5	248.6	192.7	203.4	214.8	218.0	180.3	153.3	148.7	189.5	220.6	230.2	243.1
30	255.6	233.4	220.0	207.0	177.3	172.3	165.1	158.8	149.4	139.2	132.0	191.6	219.5	194.9	195.0	167.9	161.8	171.8	165.8	179.3	141.0	143.2	209.1	232.1

Total Hours in Month 720

Hours Data Available 712

Data Recovery 98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	246.7	258.6	246.8	247.9	244.4	245.9	239.1	234.8	270.1	303.2	302.4	308.3	325.7	319.5	314.6	302.5	291.6	291.1	284.3	292.9	289.5	288.9	287.9	285.8
2	287.2	290.0	286.0	287.0	288.6	288.7	289.4	293.8	295.2	298.8	301.6	306.0	310.2	308.7	306.8	314.1	312.3	314.0	307.7	302.5	298.2	294.5	298.1	299.7
3	301.1	305.3	305.3	307.7	303.7	300.0	301.2	300.6	307.1	309.9	309.4	319.9	325.5	327.0	323.0	332.1	329.2	333.7	316.1	323.5	339.5	268.1	314.5	308.4
4	353.5	23.7	92.4	105.3	101.3	113.0	108.8	121.2	129.3	124.5	117.0	117.7	117.3	116.9	118.0	117.7	123.0	122.5	129.1	133.6	130.8	131.8	141.7	137.7
5	135.2	138.3	129.1	135.9	135.7	137.9	135.8	139.0	122.1	108.0	103.4	109.3	212.3	282.6	296.0	299.0	295.8	300.5	293.5	300.7	305.3	294.8	289.0	299.0
6	302.3	296.8	300.7	302.4	305.0	310.8	311.9	311.2	322.4	324.2	325.9	321.5	315.9	322.3	329.1	326.2	322.1	313.8	311.3	314.3	305.1	318.6	309.5	308.3
7	312.4	313.5	311.7	316.6	320.2	314.7	321.4	315.7	319.7	316.9	318.8	323.0	328.2	329.2	331.1	333.7	335.6	337.8	334.6	334.2	329.6	328.0	324.4	318.0
8	313.3	318.0	318.2	324.5	324.6	326.5	318.4	314.7	321.3	315.8	313.7	318.3	325.1	330.4	334.7	326.6	324.5	331.3	322.2	316.1	315.4	313.2	318.9	335.8
9	325.6	324.7	312.1	312.9	303.2	339.5	140.6	93.6	113.4	313.5	303.8	103.2	276.0	292.1	310.9	313.0	325.0	330.4	329.7	324.4	299.0	303.7	298.0	298.9
10	294.1	296.7	300.1	300.1	304.4	296.3	291.9	301.0	305.3	303.3	306.1	317.7	322.4	328.9	315.7	321.3	304.9	320.1	327.4	320.9	306.5	312.4	304.8	306.6
11	304.6	313.0	309.0	305.1	303.3	304.4	323.1	310.6	100.8	102.3	115.5	122.4	123.7	112.3	112.6	110.0	108.3	117.0	118.8	118.6	124.5	124.7	126.1	123.9
12	125.1	125.9	126.9	117.2	116.9	118.9	118.8	124.5	71.0	344.0	182.3	314.6	288.7	316.1	339.5	339.1	323.5	309.0	308.3	337.2	336.4	303.7	302.6	301.3
13	299.5	299.0	309.1	312.8	314.1	314.6	314.8	302.1	304.9	304.1	312.4	308.7	310.8	316.8	292.2	297.2	303.1	305.7	301.1	301.2	302.5	307.9	307.2	306.8
14	306.4	301.1	304.4	306.1	309.0	314.2	312.9	309.6	306.6	307.8	314.9	311.9	312.5	322.6	323.0	339.0	322.1	319.9	317.4	336.9	337.2	347.0	335.1	318.6
15	306.5	305.6	310.1	287.1	297.5	272.1	305.3	127.7	117.0	109.5	116.8	115.0	312.3	308.5	297.5	339.9	306.5	341.5	333.9	344.5	329.5	303.2	310.7	313.4
16	309.3	307.9	307.2	299.5	304.2	305.9	308.0	302.9	306.6	308.9	309.6	304.4	312.9	307.8	309.0	312.0	305.7	307.6	312.9	329.7	319.3	318.3	311.9	309.5
17	312.1	312.8	309.8	303.8	300.8	302.4	301.4	301.7	301.7	298.5	305.6	307.1	310.9	307.6	313.9	314.5	323.2	333.1	313.4	306.0	302.3	302.4	301.4	300.3
18	299.0	300.1	301.0	301.4	306.0	300.0	312.7	310.8	304.0	308.3	313.3	308.0	323.3	319.8	303.4	294.1	309.7	305.1	291.7	291.9	296.0	295.0	289.7	285.1
19	289.0	285.7	304.2	324.7	308.5	295.4	295.6	316.3	299.6	293.2	266.2	293.2	214.1	34.8	121.1	123.0	122.9	119.1	102.2	93.4	97.0	88.1	79.6	101.3
20	101.5	117.9	128.3	123.9	106.8	98.0	103.7	109.8	101.9	106.8	95.7	108.6	111.9	109.2	111.5	105.7	101.7	94.8	95.5	89.8	88.2	91.8	92.9	96.7
21	100.2	94.7	93.3	91.7	95.5	102.6	112.5	96.1	96.1	63.9	91.8	67.7	84.9	82.3	54.8	57.7	79.0	74.3	332.9	321.6	293.9	308.4	304.8	297.8
22	303.6	299.9	311.5	307.6	301.7	307.0	306.6	309.8	315.0	317.9	314.8	317.2	80.4	117.4	113.9	120.5	103.9	107.5	298.8	290.6	292.5	149.4	113.9	157.5
23	135.5	156.0	132.9	117.4	132.1	129.2	151.3	123.2	131.8	137.0	150.6	175.3	163.3	173.6	157.1	126.4	101.8	319.2	302.1	290.7	290.4	302.0	289.8	288.5
24	185.0	227.4	177.0	118.8	105.4	115.7	121.8	125.6	108.8	106.0	126.5	161.8	163.1	196.6	192.6	173.2	151.5	153.4	120.1	95.4	93.1	95.2	95.6	103.2
25	120.0	117.9	123.7	115.6	114.3	111.1	112.0	115.0	112.3	109.1	108.5	109.7	109.6	108.6	107.5	107.1	109.3	110.3	112.0	113.6	135.1	137.8	149.5	137.0
26	133.3	138.6	141.8	140.5	123.7	110.7	116.6	131.6	144.1	146.8	143.4	149.7	136.6	130.8	135.6	117.0	110.6	107.6	118.5	118.4	110.5	108.3	107.8	111.8
27	107.6	108.5	108.3	109.2	109.6	116.5	115.2	123.5	93.6	60.9	62.4	77.3	104.1	119.3	110.5	113.5	108.6	123.2	125.0	130.3	123.2	116.8	112.0	121.7
28	115.3	122.2	120.6	120.2	140.2	94.9	140.2	152.7	167.7	160.1	147.2	150.0	145.3	149.0	151.8	145.1	147.2	123.4	117.0	121.3	112.6	119.1	118.0	115.0
29	115.5	112.1	113.8	113.6	112.6	110.8	109.0	110.3	110.7	108.1	108.7	108.9	111.4	110.5	112.6	112.7	110.0	109.7	98.8	105.6	109.3	110.6	110.7	112.8
30	90.1	69.3	52.9	47.4	39.9	40.8	3.0	343.9	307.4	294.4	300.4	304.3	296.6	244.8	236.7	326.4	203.6	218.4	236.0	229.9	207.5	224.6	239.7	242.1
31	268.5	270.4	224.7	241.9	250.1	246.5	238.4	235.3	235.6	230.0	219.7	214.7	214.0	208.4	193.0	164.4	154.6	124.5	108.4	99.2	100.6	106.4	98.2	88.4

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	90.4	70.8	87.4	79.8	70.3	54.3	60.9	72.2	37.4	317.9	321.0	318.1	304.7	310.0	230.7	153.5	169.2	279.9	279.2	279.6	281.6	279.1	274.7	273.5
2	280.2	282.0	284.4	338.0	281.6	287.9	299.1	301.3	304.1	302.6	295.7	295.8	296.4	300.7	313.4	315.9	306.7	294.7	293.3	304.2	309.7	309.0	306.7	303.3
3	305.0	305.5	309.5	300.6	298.8	294.9	295.5	305.7	296.4	269.9	150.4	137.6	188.5	121.6	118.5	116.5	164.7	174.0	154.3	115.3	114.2	118.3	121.8	120.8
4	114.6	110.5	110.3	110.5	113.1	115.8	111.2	111.8	114.7	115.7	117.4	118.7	120.0	125.0	121.6	122.9	124.1	125.5	124.1	133.8	137.4	125.6	117.5	114.7
5	116.0	114.7	113.8	114.4	116.4	114.2	112.6	102.2	100.2	102.5	108.7	102.2	110.2	109.1	105.0	104.1	102.3	107.0	106.8	113.3	111.4	119.4	116.7	109.7
6	116.4	114.4	115.3	113.8	114.1	108.7	105.8	103.8	106.3	105.8	108.3	106.6	106.0	108.6	107.5	103.4	106.6	107.5	107.9	113.4	112.0	113.1	124.7	151.5
7	153.1	128.6	115.2	123.0	118.1	112.9	112.9	114.6	119.4	125.8	119.9	123.1	126.3	135.5	160.3	159.3	174.6	172.3	177.2	200.1	199.4	202.9	195.3	152.5
8	148.3	143.5	108.2	106.6	103.8	103.7	102.7	107.4	109.3	106.0	107.1	107.4	110.6	120.8	116.6	117.2	122.4	123.3	118.2	114.1	114.6	105.1	111.5	121.2
9	119.5	117.1	121.4	112.4	111.5	112.3	114.8	114.6	119.7	123.3	120.2	118.2	114.1	115.7	117.5	114.9	119.1	118.7	117.5	110.5	114.1	101.8	87.9	341.3
10	321.3	315.6	300.9	302.7	300.3	298.7	307.6	306.8	301.4	302.4	305.2	311.2	314.5	307.2	312.0	306.8	304.8	320.0	320.8	306.5	312.6	306.6	323.6	315.0
11	303.8	296.7	310.1	301.2	300.8	303.4	301.0	302.7	301.2	301.5	302.2	304.7	305.9	299.4	312.8	310.3	307.1	311.0	308.5	323.1	308.8	308.7	297.6	284.4
12	300.5	297.5	304.2	347.0	119.1	126.2	138.6	119.2	125.2	183.7	191.6	190.1	127.4	109.5	100.1	94.5	103.4	105.0	94.5	96.6	116.8	116.6	118.4	118.9
13	111.6	105.9	108.0	106.5	107.3	107.0	111.1	112.8	111.3	108.7	108.9	103.4	93.3	122.6	157.6	258.6	348.1	103.2	98.8	102.0	92.9	102.7	108.4	113.9
14	136.0	145.4	148.9	140.9	141.7	149.8	138.8	142.7	150.1	96.9	92.5	111.5	112.4	114.5	113.0	111.1	95.4	108.1	105.1	94.3	56.9	17.7	21.7	310.2
15	298.6	304.0	306.4	301.6	302.9	306.1	313.4	326.4	313.5	329.6	324.5	326.0	326.1	320.6	311.9	321.7	327.5	320.5	322.6	322.9	314.7	319.7	325.2	321.2
16	314.0	314.0	313.0	311.5	308.4	314.4	319.2	317.7	317.1	317.5	319.1	320.6	325.7	331.2	329.0	329.9	329.7	328.4	332.1	329.2	332.9	331.4	329.3	330.7
17	327.7	329.1	325.2	321.0	329.0	328.9	329.9	324.4	319.6	312.3	312.5	312.1	317.8	319.8	320.0	325.7	323.4	314.6	323.3	329.0	323.6	320.9	327.9	321.7
18	316.9	307.2	299.4	301.6	304.8	307.9	296.8	301.2	303.9	300.5	310.2	301.7	304.4	306.8	309.1	310.9	305.8	299.9	301.7	299.9	314.6	10.2	138.4	114.3
19	105.2	104.0	101.5	85.0	104.9	122.7	115.6	146.5	111.7	126.3	120.1	114.2	111.7	115.3	115.4	117.2	118.0	117.2	115.2	100.6	109.7	105.2	99.8	98.5
20	101.7	100.0	98.5	98.5	96.7	108.2	108.2	108.8	109.5	109.5	109.0	109.6	108.7	111.8	116.8	114.3	111.5	104.4	95.6	88.1	79.9	62.8	100.9	91.4
21	83.5	84.0	92.3	100.6	102.3	107.0	121.8	135.1	141.3	129.9	123.7	121.1	122.8	119.1	116.3	125.4	132.3	122.1	120.3	120.9	121.9	120.8	116.1	125.9
22	132.8	122.9	115.2	109.6	95.0	82.8	75.6	83.3	96.2	106.1	109.1	108.9	108.2	105.1	98.1	94.0	87.9	98.7	105.0	113.5	120.6	127.7	143.1	169.1
23	168.0	172.4	174.3	176.5	185.6	207.0	202.1	195.2	195.0	200.9	206.3	191.6	195.0	198.3	211.1	242.7	306.9	254.8	205.4	209.1	223.8	226.4	227.3	221.9
24	213.1	219.2	222.4	194.8	163.0	152.1	160.8	122.5	119.3	110.8	110.9	103.8	99.6	106.5	112.1	107.0	109.1	108.6	107.3	109.1	107.6	105.7	106.1	109.3
25	107.0	108.5	109.1	112.0	106.9	107.6	103.4	86.7	94.2	91.6	96.5	94.0	75.0	88.8	89.8	95.9	97.2	95.5	74.9	62.1	81.9	60.9	50.4	56.3
26	42.5	46.4	36.7	5.0	9.6	0.7	48.3	79.6	99.4	117.5	143.8	153.5	153.9	169.2	139.4	147.6	134.6	144.5	146.6	152.0	154.4	136.5	129.0	123.9
27	128.9	122.1	111.0	111.8	113.8	111.5	110.2	109.8	110.8	111.5	114.8	112.8	114.4	111.3	111.6	112.2	116.5	119.4	113.8	116.6	118.3	121.4	118.5	121.8
28	127.2	125.0	129.0	132.8	138.0	139.9	122.4	145.6	148.6	147.2	144.4	147.3	147.8	139.6	124.9	134.1	134.4	130.0	130.2	124.7	122.4	124.6	135.3	133.6
29	132.6	136.8	128.1	123.8	109.2	114.0	118.2	120.2	118.6	119.6	119.7	116.4	121.3	119.6	120.6	116.8	115.0	116.7	122.9	122.1	124.5	124.8	122.3	119.4
30	117.3	119.4	117.8	116.1	118.3	118.8	114.5	114.7	115.5	120.8	120.4	115.7	114.4	117.8	121.0	119.9	125.2	129.9	126.8	123.6	119.8	126.4	123.0	123.5

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Resultant Wind Direction (RMYoung) (Degrees)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
1	133.6	131.9	135.2	138.7	130.9	124.0	132.9	132.5	147.6	151.6	140.2	156.6	137.6	139.2	153.3	167.6	173.6	158.0	152.5	233.6	302.0	306.3	304.0	306.6
2	306.7	306.6	314.7	310.9	309.6	306.6	308.8	303.5	308.4	302.7	343.4	298.5	36.8	205.3	206.0	186.2	174.2	288.8	358.7	69.3	95.1	85.1	86.5	109.7
3	128.9	110.7	105.8	111.8	112.3	112.0	111.0	110.3	112.7	110.9	105.6	101.1	104.6	96.0	88.2	91.6	78.0	51.4	128.5	113.7	127.1	140.3	115.1	119.3
4	111.4	119.7	117.9	119.5	120.9	119.4	114.4	108.0	113.9	110.0	103.7	122.7	116.7	106.4	120.3	137.5	134.2	126.3	133.5	140.3	140.2	129.8	149.9	138.3
5	152.5	147.7	145.5	149.5	156.3	151.5	152.3	153.9	152.3	141.3	131.2	121.2	119.6	119.8	119.1	117.8	120.1	119.0	119.6	120.3	117.3	114.7	119.6	117.4
6	115.8	115.8	113.5	114.3	115.6	114.9	117.7	117.1	116.8	116.8	116.3	114.5	113.6	114.9	120.2	124.1	146.0	156.8	222.2	223.6	209.6	205.7	200.1	192.7
7	188.8	171.1	129.7	141.9	121.4	126.2	118.6	122.1	103.7	103.7	110.6	107.1	111.0	106.7	106.3	108.2	107.6	108.8	108.3	106.4	104.8	104.9	105.0	105.8
8	112.0	120.5	144.0	162.4	166.3	171.0	165.5	158.1	152.7	144.0	139.9	122.3	119.2	133.7	144.0	160.4	251.5	212.0	213.9	222.2	232.5	232.3	234.8	234.2
9	204.7	149.0	130.3	132.0	120.8	95.1	101.5	102.0	108.2	119.6	119.1	126.2	121.7	119.7	112.7	119.9	117.9	118.5	116.5	115.4	114.4	119.3	121.4	118.7
10	112.5	119.5	119.9	107.5	101.0	91.0	72.2	63.6	52.7	399.2	26.1	0.5	326.8	330.4	342.0	341.4	335.6	335.7	317.6	305.9	303.1	307.1	302.7	302.4
11	301.0	298.8	301.7	301.6	296.2	298.5	295.0	289.8	275.0	306.3														
12																								
13																								
14	311.2	312.2	312.3	317.3	314.0	303.1	317.4	308.5	305.2															
15	311.6	323.1	317.3	321.9	323.1	320.7	317.5	314.2	309.1	309.0	310.4	312.2	312.9	310.4	310.8	309.5	311.0	312.4	315.6	321.5	319.9	332.3	329.3	321.5
16	313.0	314.7	316.3	317.0	317.7	318.7	324.3	325.7	319.8	317.3	316.2	318.3	316.9	318.3	325.2	327.4	330.2	332.3	326.8	326.6	329.6	329.8	324.8	330.1
17	326.3	323.5	329.6	327.6	327.3	324.9	329.4	332.8	331.0	331.2	330.3	331.6	328.3	329.7	326.1	320.6	324.0	326.8	326.8	319.8	317.1	319.5	311.4	312.5
18	308.4	307.0	308.8	301.4	299.5	305.7	310.6	305.5	299.6	300.5	300.7	305.4	314.4	309.7	305.5	326.6	323.0	313.5	309.0	301.1	301.0	303.5	315.1	316.2
19	308.3	312.0	320.2	314.8	316.2	311.1	315.9	307.6	313.6	312.8	305.5	301.4	299.3	303.1	303.7	305.1	310.1	298.7	298.0	307.5	307.3	299.7	292.4	300.3
20	309.7	306.1	301.3	118.8	107.3	108.1	114.2	113.7	109.6	111.9	108.6	111.8	122.7	120.5	120.1	119.6	121.6	122.4	118.9	118.1	128.4	138.8	137.4	108.8
21	109.0	120.4	118.7	118.9	121.7	117.6	128.0	162.1	163.5	153.3	154.4	141.8	145.6	152.2	137.9	109.4	126.5	124.5	127.4	123.6	122.7	123.1	108.0	124.8
22	123.1	112.9	107.5	109.1	112.1	110.0	114.2	114.4	117.3	122.0	121.1	115.2	114.2	118.4	120.3	119.8	125.9	128.5	125.1	127.3	127.9	179.0	213.4	215.8
23	216.4	226.5	230.0	234.0	219.5	187.4	193.5	202.8	216.9	220.7	234.3	235.8	257.7	258.7	266.3	274.7	268.4	255.0	320.3	347.6	205.6	208.5	299.6	0.1
24	56.8	327.8	319.5	313.4	314.0	319.3	310.5	331.3	329.2	324.1	322.2	332.0	333.1	334.6	337.7	337.0	333.1	330.6	320.1	317.5	321.6	319.1	310.2	315.3
25	314.2	315.2	320.9	323.8	323.0	323.9	320.6	322.9	313.1	316.9	309.0	303.2	300.8	302.4	304.3	303.2	304.6	308.0	304.9	306.0	306.9	314.5	323.5	325.5
26	312.5	305.0	291.4	270.5	282.1	295.9	121.8	110.4	120.0	129.1	126.0	111.4	109.3	118.8	132.0	113.5	110.5	113.8	114.5	108.4	107.7	108.3	107.0	105.4
27	108.2	109.9	108.0	109.5	110.8	109.8	108.1	108.3	107.8	105.4	104.8	105.3	103.1	101.7	97.8	94.7	93.1	96.1	92.0	118.7	108.8	130.9	156.6	164.8
28	160.7	179.4	195.4	197.2	211.5	267.1	291.6	283.0	289.1	302.2	318.8	313.4	316.8	314.0	311.0	329.4	321.7	306.8	320.4	326.3	333.3	328.2	324.8	324.1
29	317.9	319.0	315.8	313.8	313.4	311.1	308.2	305.3	304.1	303.5	301.8	309.4	309.5	302.7	302.0	318.7	307.7	301.3	305.1	299.3	297.9	300.6	302.3	301.7
30	301.0	310.3	311.6	310.9	318.2	314.7	317.5	312.2	320.2	342.9	318.4	327.0	335.7	343.2	312.7	322.0	340.8	351.5	323.2	307.7	327.0	320.0	299.4	304.8
31	299.0	315.0	311.9	308.2	314.3	309.0	311.7	308.6	313.1	316.1	310.5	309.2	315.7	309.5	304.2	311.7	312.7	312.4	313.7	312.3	316.5	317.8	313.3	323.5

Total Hours in Month 744 Hours Data Available 673 Data Recovery 90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.6	3.2	3.9	3.4	3.1	3.8	3.7	3.5	3.6	3.7	2.9	2.8	3.9	2.3	3.2	3.3	2.9	5.6	3.0	3.6	4.4	2.7	2.3	3.7	5.6	2.3	3.5
2	2.9	5.3	5.0	2.8	4.6	2.8	5.8	3.4	2.3	3.1	4.6	4.0	2.7	2.9	2.4	3.1	2.6	3.0	3.0	3.3	3.6	1.8	3.1	3.3	5.8	1.8	3.4
3	2.9	2.4	3.2	4.7	2.8	2.5	3.1	2.4	2.8	1.4	1.5	2.5	2.4	2.2	2.6	4.5	7.2	3.2	2.3	2.7	2.6	3.9	4.6	3.9	7.2	1.4	3.1
4	2.0	3.5	3.1	4.9	5.9	4.1	4.3	3.6	3.9	4.2	4.8	4.1	6.0	16.7	6.8	7.0	11.2	29.7	16.9	26.7	8.0	10.8	13.9	8.4	29.7	2.0	8.8
5	19.3	45.0	3.2	4.3	3.2	3.8	2.6	3.6	2.5	4.5	5.6	5.6	3.7	3.5	2.6	3.6	2.5	2.8	4.2	3.2	5.4	3.0	4.1	4.1	45.0	2.5	6.1
6	3.5	8.3	2.8	3.7	6.9	4.4	2.9	3.3	4.0	5.0	4.2	3.9	5.3	4.1	3.3	2.9	3.1	4.5	3.8	2.6	4.6	2.9	3.4	3.0	8.3	2.6	4.0
7	3.3	3.6	4.0	5.1	4.7	3.3	3.0	3.2	2.9	2.3	3.3	3.4	4.1	3.7	3.6	2.9	2.6	2.2	2.9	3.7	3.3	4.3	3.2	3.2	5.1	2.2	3.4
8	2.0	2.3	2.4	7.0	9.4	5.7	2.7	3.0	2.1	2.8	1.6	3.1	3.0	2.7	4.5	3.2	3.1	3.7	3.3	2.3	2.7	3.4	3.5	3.7	9.4	1.6	3.5
9	3.4	2.6	2.7	3.3	2.7	3.0	4.6	3.5	2.4	2.7	3.4	5.0	18.0	11.0	5.0	11.5	4.7	4.7	3.9	5.9	4.0	4.1	4.2	4.1	18.0	2.4	5.0
10	5.6	6.0	5.4	8.8	6.2	3.4	5.6	5.6	6.4	8.0	10.3	5.3	3.8	3.9	4.1	4.0	3.8	3.8	3.4	3.6	3.7	3.7	3.8	3.9	10.3	3.4	5.1
11	3.8	3.8	3.9	3.9	3.7	3.4	3.4	3.4	3.3	3.5	3.3	3.2	3.1	3.4	3.3	3.1	3.0	3.0	3.1	3.1	3.1	3.4	3.4	3.1	3.9	3.0	3.3
12	3.3	3.2	3.2	2.9	3.2	3.1	3.4	3.4	3.5	3.4	3.6	3.4	3.0	3.0	3.0	3.1	3.2	3.1	3.2	3.3	3.5	3.6	3.6	8.8	8.8	2.9	3.5
13	6.0	4.1	3.8	3.9	4.1	4.5	4.4	5.1	5.4	4.3	4.5	8.6	6.0	7.9	19.2	12.8	15.2	12.2	13.6	5.2	8.3	8.9	7.6	4.0	19.2	3.8	7.5
14	3.3	3.3	2.8	3.5	3.7	4.8	5.4	4.0	5.5	3.8	4.9	6.7	4.2	3.4	2.8	2.9	2.2	3.4	1.6	2.1	1.9	2.6	3.6	2.6	6.7	1.6	3.5
15	1.9	3.0	2.4	2.3	1.8	2.3	2.9	2.3	4.1	2.9	2.4	2.4	4.2	2.3	2.5	2.2	1.5	2.9	3.1	5.0	6.2	5.2	12.0	5.5	12.0	1.5	3.5
16	6.2	11.2	51.3	13.9	39.0	15.1	7.7	3.3	10.9	9.3	4.0	3.2	3.4	3.2	3.1	3.0	3.2	3.2	3.2	3.2	3.3	3.3	3.0	3.1	51.3	3.0	8.9
17	3.2	3.3	3.6	4.0	3.6	3.7	5.4	6.2	4.0	4.7	5.9	7.2	3.5												7.2	3.2	4.4
18	3.1	3.5	3.5	6.7	3.9	2.6	4.0	3.5	3.1	3.9	33.6	10.7	6.7	7.9	8.5	14.2	4.1	2.2	3.3	6.8	8.0	2.7	3.9	3.5	33.6	2.2	6.4
19	2.5	2.3	3.9	5.2	19.2	14.6	8.0	24.3	10.6	13.1	20.7	9.7	9.9	7.8	5.0	6.5	7.2	6.5	4.6	11.8	12.6	12.7	5.9	9.6	24.3	2.3	9.8
20	6.9	6.1	4.0	4.0	3.7	3.6	3.4	3.1	3.2	3.3	4.2	5.4	15.9	30.3	10.5	9.6	18.5	14.4	7.3	4.1	3.3	5.4	4.5	3.1	30.3	3.1	7.4
21	3.3	3.5	3.7	3.9	3.5	2.7	6.2	7.5	5.3	6.3	5.6	8.5	5.2	7.4	8.0	7.2	9.0	13.3	11.9	8.2	6.9	31.4	43.5	4.5	43.5	2.7	9.0
22	5.9	4.2	6.6	4.2	18.7	21.6	9.3	6.0	8.0	5.2	5.3	5.6	6.2	18.1	5.3	2.3	2.6	2.4	4.9	2.7	6.0	3.6	2.0	5.0	21.6	2.0	6.7
23	3.8	5.9	14.9	5.1	4.5	4.8	3.3	3.6	3.3	4.3	3.3	3.3	7.0	3.6	3.3	2.7	2.5	2.7	3.0	6.8	4.7	5.0	3.9	3.3	14.9	2.5	4.5
24	3.1	3.0	2.7	3.4	2.3	2.6	3.2	5.9	7.2	2.9	2.5	5.9	4.7	4.3	6.3	3.8	3.9	2.5	2.9	3.9	9.0	11.9	6.6	8.2	11.9	2.3	4.7
25	9.0	4.7	31.6	7.0	10.2	4.8	7.1	6.8	3.4	3.1	4.3	4.5	3.5	3.5	3.4	3.9	4.5	5.0	3.8	3.3	3.1	2.9	3.0	3.2	31.6	2.9	5.8
26	3.2	3.1	3.3	3.4	3.4	3.7	3.4	3.6	3.9	3.8	3.4	3.7	3.7	4.0	3.8	4.2	3.9	3.7	4.0	3.8	3.7	3.8	5.5	5.7	5.7	3.1	3.8
27	3.2	3.5	3.2	3.5	3.1	3.1	3.3	3.5	3.6	3.6	3.8	3.3	3.5	3.1	2.8	3.2	3.3	3.1	3.4	3.6	3.7	3.5	3.3	3.1	3.8	2.8	3.3
28	3.2	3.6	3.1	3.2	3.1	3.4	3.0	2.9	3.2	3.1	3.7	3.5	3.8	4.6	4.2	3.9	3.5	4.3	4.2	4.9	4.7	4.7	3.1	3.3	4.9	2.9	3.7
29	3.0	3.9	3.9	4.3	3.9	4.0	3.3	3.3	3.3	2.9	3.2	3.3	3.7	3.2	3.2	3.6	3.0	3.2	3.6	3.6	3.8	3.7	3.7	3.8	4.3	2.9	3.5
30	11.0	3.4	3.4	3.6	3.3	3.6	3.5	3.8	3.5	3.8	3.9	3.8	3.7	4.1	3.9	3.9	4.9	5.1	4.7	5.3	4.5	4.4	4.1	4.3	11.0	3.3	4.3
31	5.3	5.4	5.3	4.9	4.4	4.4	4.4	4.4	4.5	3.9	4.4	3.8	4.7	5.4	5.9	5.2	5.9	5.6	4.6	3.9	5.5	5.5	3.6	3.9	5.9	3.6	4.8
Max.	19.3	45.0	51.3	13.9	39.0	21.6	9.3	24.3	10.9	13.1	33.6	10.7	18.0	30.3	19.2	14.2	18.5	29.7	16.9	26.7	12.6	31.4	43.5	9.6	51.3		
Min.	1.9	2.3	2.4	2.3	1.8	2.3	2.6	2.3	2.1	1.4	1.5	2.4	2.4	2.2	2.4	2.2	1.5	2.2	1.6	2.1	1.9	1.8	2.0	2.6		1.4	
Avg.	4.6	5.5	6.5	4.7	6.3	4.9	4.4	4.7	4.4	4.3	5.6	4.8	5.2	6.1	4.9	4.9	5.0	5.5	4.7	5.1	4.9	5.6	5.8	4.4		5.1	

Total Hours in Month 744

Hours Data Available 737

Data Recovery 99.1%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	5.1	6.7	4.9	6.2	4.2	4.1	4.2	3.8	4.3	4.3	5.9	4.0	5.3	4.0	4.1	4.2	4.0	4.0	3.8	4.6	4.2	3.7	4.9	3.6	6.7	3.6	4.5	
2	3.8	4.1	3.8	4.5	4.0	3.9	4.2	3.9	3.9	4.0	4.3	4.0	4.2	4.2	4.2	3.9	3.5	4.1	3.9	3.9	3.9	3.7	3.7	3.7	4.5	3.5	4.0	
3	4.0	4.0	3.9	4.1	4.0	4.1	4.1	4.3	4.2	5.0	5.8	5.5	8.6	11.5	13.1	7.9	10.6	14.6	42.1	10.4	11.2	7.6	2.6	3.6	42.1	2.6	8.2	
4	3.3	3.3	3.0	4.2	5.8	5.7	2.8	2.9	4.2	4.5	2.9	4.3	3.5	6.0	21.0	14.5	44.5	46.8	8.2	12.4	28.8	5.2	4.2	6.6	46.8	2.8	10.4	
5	5.2	5.5	5.8	4.4	7.2	6.0	7.1	6.0	12.0	8.6	5.8	6.2	7.1	6.7	6.3	3.9	3.9	6.1	4.9	6.9	8.6	7.0	5.1	4.1	12.0	3.9	6.3	
6	3.6	3.5	4.6	3.8	4.0	3.5	3.4	3.4	3.1	2.9	3.0	3.8	3.7	3.4	3.3	3.7			4.8	6.2	13.8	10.3	6.5	4.1	13.8	2.9	4.7	
7	6.5	6.5	4.0	3.9	7.7	13.8	49.7	3.8	8.4	12.8	33.2	45.4	11.1	8.4	14.0	9.7	7.9	22.8	9.6	7.2	12.9	16.0	6.3	13.0	49.7	3.8	13.9	
8	7.3	7.6	7.4	8.7	5.9	3.6	2.8	3.7	3.0	3.0	3.1	4.1	4.1	4.5	4.7	5.3	4.3	4.0	4.6	4.8	3.9	3.5	7.7	4.7	8.7	2.8	4.8	
9	6.6	8.8	6.1	7.3	5.3	6.6	3.6	6.1	4.0	4.9	7.6	5.4	5.5	6.1	6.2	7.8	5.7	5.6	8.1	10.0	12.3	17.6	25.7	32.8	10.0	32.8	3.5	9.0
10	14.7	14.6	13.8	25.9	20.0	20.3	6.1	5.2	4.8	4.9	7.6	5.4	5.5	6.1	6.2	7.8	5.7	5.6	5.3	7.2	6.2	4.6	4.8	3.9	25.9	3.9	8.9	
11	23.5	47.8	5.9	7.0	5.2	6.2	8.5	9.4	5.6	6.2	9.1	8.5	11.1	4.6	4.3	4.1	3.5	3.4	3.5	3.6	3.7	3.7	3.6	3.6	47.8	3.4	8.1	
12	3.7	3.6	3.4	3.5	3.4	3.3	3.6	3.4	3.1	3.6	3.9	4.0	3.8	3.6	4.0	5.3	4.4	3.7	3.3	5.3	6.2	6.1	11.7	11.2	11.7	3.1	4.6	
13	10.6	5.7	5.1	4.3	6.4	6.7	5.3	4.6	5.8	5.7	15.3	16.1	11.0	9.4	9.3	5.8	5.1	3.8	3.9	4.2	3.7	3.9	4.4	5.9	16.1	3.7	6.8	
14	3.8	4.0	4.3	4.1	4.7	4.5	4.2	3.6	4.1	4.9	5.0	4.1	3.8	4.3	4.3	4.1	3.4	4.6	6.0	7.2	4.4	8.0	24.2	14.2	24.2	3.4	5.8	
15	9.5	7.6	38.1	56.8	5.2	4.8	3.3	5.2	5.4	5.6	4.3	5.4	5.9	7.2	3.1	3.6	2.4	2.6	3.0	2.4	3.2	3.7	6.0	30.7	56.8	2.4	9.4	
16	66.5	30.2	68.6	28.3	30.7	8.8	9.9	10.4	6.5	6.9	8.3	4.0	5.6	5.1	4.8	9.4	10.4	32.9	17.1	51.1	21.9	7.9	8.6	37.6	68.6	4.0	20.5	
17	32.6	40.8	48.1	17.1	7.9	9.2	18.8	7.1	11.8	16.2	28.3	20.1	12.4	8.7	9.8	5.5	10.1	4.5	3.9	4.7	7.2	7.4	8.7	4.2	48.1	3.9	14.4	
18	6.2	7.6	6.2	5.6	6.5	13.1	11.8	9.2	7.4	5.0	6.9	12.0	8.8	33.0	27.4	42.7	39.6	53.0	36.9	25.8	7.6	6.2	2.9	2.6	53.0	2.6	16.0	
19	2.7	2.5	3.7	4.1	4.9	4.2	3.7	3.9	4.0	3.2	3.5	3.0	2.5	3.1	3.4	3.5	2.6	2.6	2.7	3.6	3.7	5.3	3.5	3.7	5.3	2.5	3.5	
20	2.9	4.8	7.4	4.1	5.8	4.3	4.7	4.2	3.9	3.6	3.5	3.1	3.6	3.8	4.3	3.6	3.9	3.0	3.7	4.2	5.1	3.8	3.3	4.0	7.4	2.9	4.1	
21	4.3	3.8	4.0	3.1	3.2	2.5	2.7	3.1	4.3	3.6	4.8	3.1	3.3	3.8	2.9	3.0	3.1	3.7	2.8	4.9	4.6	4.6	4.5	2.5	4.9	2.5	3.6	
22	3.4	3.7	3.5	2.5	3.6	6.8	2.8	2.7	3.8	2.6	3.4	3.5	5.7	5.4	3.7	3.6	6.0	3.7	3.2	3.6	3.0	2.0	4.1	4.2	6.8	2.0	3.8	
23	4.4	5.7	5.7	4.6	4.1	3.1	3.0	3.3	3.5	4.0	3.6	4.8	4.2	3.2	2.8	3.1	2.8	3.0	2.6	5.2	5.3	3.4	4.8	3.5	5.7	2.6	3.9	
24	1.9	3.0	3.0	4.6	4.4	2.8	2.5	2.5	1.9	3.2	2.5	4.0	2.9	3.5	3.1	3.7	2.9	3.0	3.2	3.0	3.4	4.3	3.0	4.7	4.7	1.9	3.2	
25	4.1	5.7	4.8	4.5	5.1	5.3	5.5	5.6	5.2	2.8	4.7	5.1	3.4	3.8	4.4	2.8	5.1	6.6	4.9	3.1	2.5	3.8	3.5	3.4	6.6	2.5	4.4	
26	3.9	4.6	4.2	4.5	8.0	4.7	5.8	4.6	4.8	3.8	5.7	7.0	8.8	3.7	3.4	2.2	3.1	2.7	3.4	2.5	3.0	2.6	1.9	2.1	8.8	1.9	4.2	
27	2.2	2.2	2.2	3.0	3.0	3.7	3.1	3.2	2.7	2.9	6.6	5.1	6.2	7.0	7.3	5.6	4.4	3.3	4.7	7.8	7.1	6.4	4.6	4.8	7.8	2.2	4.5	
28	3.7	2.6	4.7	3.2	4.8	3.9	3.9	5.1	3.2	4.1	5.7	4.8	3.0	4.0	4.2	5.7	6.2	5.3	3.9	10.4	6.0	6.9	5.8	4.0	10.4	2.6	4.8	
Max.	66.5	47.8	68.6	56.8	30.7	20.3	49.7	10.4	12.0	16.2	33.2	45.4	12.4	33.0	27.4	42.7	44.5	53.0	42.1	51.1	28.8	25.7	32.8	37.6	68.6			
Min.	1.9	2.2	2.2	2.5	3.0	2.5	2.5	2.5	1.9	2.6	2.5	3.0	2.5	3.1	2.8	2.2	2.4	2.6	2.6	2.4	2.5	2.0	1.9	2.1		1.9		
Avg.	8.9	8.9	10.0	8.5	6.6	6.1	6.8	4.8	5.0	5.1	7.3	7.4	5.9	6.4	6.7	6.6	7.7	9.7	7.5	8.2	7.6	6.3	6.7	7.3			7.2	

Total Hours in Month 672 Hours Data Available 670 Data Recovery 99.7%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	6.6	5.4	4.1	3.5	4.8	3.5	4.9	3.6	4.3	4.9	4.1	5.6	3.7	4.8	4.1	4.3	5.0	5.1	3.0	5.0	3.5	3.2	3.2	3.3	4.3	6.6	3.0	4.4
2	3.3	4.3	3.6	3.1	3.4	3.6	3.3	2.8	2.6	3.7	4.3	3.6	2.7	3.7	3.4	3.2	3.8	4.0	3.5	2.7	3.1	3.2	3.4	3.3		4.3	2.6	3.4
3	4.0	3.1	3.0	5.0	4.1	4.1	3.2	3.4	4.1	3.8	7.2	9.4	5.6	4.7	4.8	5.7	3.7	6.6	6.9	4.6	4.5	11.9	8.7	5.0	11.9	3.0	5.3	
4	5.0	2.8	3.8	5.1	4.2	2.6	3.9	4.0	4.5	4.8	4.8	3.6	3.6	2.8	3.0	2.9	3.1	2.8	3.2	3.5	3.6	4.1	3.5	3.1	5.1	2.6	3.7	
5	3.7	3.5	3.9	3.5	3.4	3.5	2.9	2.9	2.9	3.0	3.8	4.5	4.7	3.7	3.5	3.7	3.8	3.7	3.2	3.2	2.7	2.9	3.7	3.2	4.7	2.7	3.5	
6	3.3	3.8	3.9	3.2	3.1	2.9	2.7	2.9	2.9	3.5	3.4	3.2	3.2	3.7	3.4	3.4	3.2	3.8	3.2	3.3	3.6	3.8	3.6	4.5	4.5	2.7	3.4	
7	4.2	3.9	3.8	3.0	2.9	4.6	4.0	3.6	4.1	3.5	4.2	4.8	4.2	3.5	3.5	3.6	4.2	3.9	3.2	3.3	3.1	2.8	2.7	2.9	4.8	2.7	3.6	
8	3.1	2.9	2.8	2.9	3.3	3.1	3.0	3.0	3.6	3.6	3.6	3.5	3.2	4.1	4.4	4.0	3.2	3.1	3.1	3.2	3.3	3.1	3.0	3.6	4.4	2.8	3.3	
9	3.5	5.1	5.2	3.8	3.2	3.4	3.5	4.9	5.1	4.7	5.6	4.4	4.2	4.0	4.3	4.6	4.2	4.1	3.2	3.1	3.1	2.9	2.9	3.0	5.6	2.9	4.0	
10	3.3	3.9	2.8	3.7	3.0	3.2	5.4	6.7	4.3	5.2	6.9	5.4	5.8	5.1	5.7	4.2	3.9	3.7	3.2	3.5	3.8	3.2	4.4	3.4	6.9	2.8	4.3	
11	4.7	5.7	4.2	4.7	4.4	4.8	2.9	3.1	4.9	3.5	2.9	3.5	4.3	4.1	4.1	3.8	4.0	3.4	3.8	3.5	3.5	3.9	4.1	4.0	5.7	2.9	4.0	
12	4.2	2.9	3.3	3.2	4.0	5.1	4.8	4.2	3.2	3.0	3.4	3.5	3.7	4.3	3.9	4.6	4.0	3.4	3.5	4.7	3.4	2.8	2.6	3.5	5.1	2.6	3.7	
13	3.5	3.6	3.1	3.2	2.4	2.6	3.1	3.1	3.1	2.8	3.4	3.1	3.4	3.4	3.5	4.6	4.3	4.7	3.5	3.0	3.0	3.4	4.8	6.1	6.1	2.4	3.5	
14	3.5	2.9	3.1	2.8	3.9	2.9	3.2	3.1	3.4	4.0	3.0	3.4	3.2	3.6	3.6	4.4	4.1	3.4	3.7	3.0	3.7	3.7	3.0	3.2	4.4	2.8	3.4	
15	3.1	4.0	3.3	3.0	2.8	2.8	2.8	3.6	3.0	3.3	5.4	3.7	4.3	5.1	6.1	4.8	5.4	3.7	3.4	3.0	3.3	3.9	4.2	4.4	6.1	2.8	3.8	
16	5.7	4.4	3.5	3.9	4.0	3.9	4.3	3.5	5.3	4.8	4.5	9.0	7.7	4.8	3.9	4.3	4.2	3.8	3.7	2.9	3.0	2.4	2.9	2.9	9.0	2.4	4.3	
17	2.8	3.3	2.7	2.6	6.4	5.8	5.9	4.4	4.1	5.5	5.6	3.6	4.7	4.6	6.1	7.4	8.1	8.3	4.0	2.7	2.2	2.2	3.1	5.5	8.3	2.2	4.7	
18	3.0	20.7	55.4	16.0	3.8	4.9	3.6	5.6	40.3	48.0	44.7	26.5	12.7	6.5	6.9	8.8	8.2	9.3	9.4	1.9	2.2	2.2	3.4	2.8	55.4	1.9	14.5	
19	2.7	3.4	2.7	2.0	2.5	2.4	2.7	2.5	2.8	3.7	2.3	3.3	8.4	10.4	10.0	13.5	10.5	9.7	6.1	5.4	6.6	8.3	8.9	33.4	33.4	2.0	6.8	
20	37.9	8.4	5.5	8.1	3.8	6.6	7.0	4.9	5.9	4.5	4.1	5.4	4.5	4.4	4.7	4.2	4.1	4.1	4.5	4.4	4.7	4.7	5.1	4.6	37.9	3.8	6.5	
21	3.4	5.1	13.1	6.1	5.2	5.9	3.1	3.8	3.8	3.9	10.0	5.8	6.8	4.3	3.3	6.3	3.1	3.0	3.6	6.4	4.4	4.2	5.0	6.5	13.1	3.0	5.2	
22	4.2	3.1	3.3	3.8	4.1	2.8	6.3	6.6	3.8	3.0	4.5	3.2	3.0	3.5	2.4	2.3	2.9	2.5	3.7	3.4	3.4	2.7	2.9	4.5	6.6	2.3	3.6	
23	3.0	4.2	3.7	2.6	3.4	2.7	3.1	3.4	3.8	5.4	5.2	2.9	3.1	3.1	2.5	2.6	2.4	2.8	2.3	2.4	2.4	2.1	3.0	4.0	5.4	2.1	3.2	
24	3.4	3.8	5.8	7.0	3.8	4.8	3.6	2.9	3.6	5.0	4.9	3.5	3.2	3.9	5.0	6.4	3.6	3.8	2.7	3.1	3.5	3.8	3.8	11.3	11.3	2.7	4.4	
25	39.1	10.9	12.6	25.1	40.9	12.5	11.6	5.8	8.1	8.1	14.3	7.9	8.4	60.9	36.3	9.8	17.5	13.4	10.9	7.2	5.1	7.1	5.0	3.9	60.9	3.9	15.9	
26	12.0	8.0	4.9	7.0	3.9	3.3	3.5	3.9	5.4	5.7	3.8	3.1	11.7	6.6	5.9	5.9	8.9	4.7	6.3	2.3	1.7	2.0	2.6	2.8	12.0	1.7	5.2	
27	4.0	4.1	3.1	3.2	2.4	3.5	3.7	4.2	6.3	5.7	7.7	5.4	3.1	3.7	4.3	7.0	5.4	4.4	4.3	3.5	5.2	3.8	4.3	3.8	7.7	2.4	4.4	
28	4.0	3.7	3.0	2.8	5.5	5.9	3.4	2.5	3.1	3.1	4.9	2.5	2.1	4.0	3.3	3.5	6.5	5.2	3.4	4.0	8.1	4.0	5.5	3.2	8.1	2.1	4.1	
29	4.0	5.1	5.4	2.4	5.2	6.0	4.0	3.6	3.5	5.7	3.7	2.6	2.4	2.7	2.7	1.8	2.9	2.1	2.7	2.5	2.1	3.3	2.6	2.8	6.0	1.8	3.4	
30	2.5	3.5	3.9	3.2	2.6	2.5	1.7	2.4	3.8	2.9	4.1	2.9	3.4	5.3	11.4	6.6	11.6	7.5	6.7	9.9	16.7	48.4	32.6	6.9	48.4	1.7	8.5	
31	9.5	6.5	6.4	5.0	10.2	14.1	11.4	10.3	15.7	3.2	3.7	7.5	25.8	15.2	9.1	5.9	2.7	2.5	1.7	2.2	3.7	2.6	3.3	2.1	25.8	1.7	7.5	
Max.	39.1	20.7	55.4	25.1	40.9	14.1	11.6	10.3	40.3	48.0	44.7	26.5	25.8	60.9	36.3	13.5	17.5	13.4	10.9	9.9	16.7	48.4	32.6	33.4	60.9			
Min.	2.5	2.8	2.7	2.0	2.4	2.4	1.7	2.4	2.6	2.8	2.3	2.5	2.1	2.7	2.4	1.8	2.4	2.1	1.7	1.9	1.7	2.0	2.6	2.1		1.7		
Avg.	6.5	5.0	6.1	5.0	5.2	4.5	4.3	4.0	5.7	5.7	6.3	5.2	5.5	6.6	5.8	5.1	5.3	4.7	4.2	3.8	4.1	5.2	4.9	5.1			5.1	

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	2.0	2.6	4.0	3.5	4.1	2.3	2.8	3.2	2.8	4.3	2.2	3.6	2.5	3.9	3.9	7.6	15.7	23.7	24.9	42.7	9.2	3.3	8.0	5.3	42.7	2.0	7.8
2	4.5	4.1	3.8	6.5	5.6	5.3	6.2	4.6	3.4	2.9	3.4	3.4	3.1	3.7	4.7	5.2	5.4	4.0	3.5	4.2	4.1	3.6	3.5	3.5	6.5	2.9	4.3
3	3.0	2.9	3.1	3.3	3.3	3.6	3.3	3.6	3.1	2.8	3.2	3.3	3.7	3.9	4.4	3.7	4.1	3.4	3.5	3.7	3.5	3.4	3.3	3.5	4.4	2.8	3.5
4	3.2	2.9	3.3	4.7	4.6	3.0	3.8	2.8	5.2	7.2	8.0	5.6	4.1	4.4	4.6	4.3	3.6	5.4	5.4	5.2	7.8	7.5	11.1	13.0	13.0	2.8	5.4
5	22.9	30.1	21.2	13.4	18.8	9.0	10.6	6.4	5.9	6.8	5.9	4.3	4.8	5.1	4.8	4.9	5.8	9.7	4.3	4.2	3.8	3.8	3.7	3.8	30.1	3.7	8.9
6	4.0	3.6	3.7	3.7	4.0	4.1	3.9	3.5	3.2	8.5	6.0	4.3	5.3	5.2	5.3	4.8	5.0	8.6	9.2	6.6	3.8	5.2	5.6	7.6	9.2	3.2	5.2
7	9.0	22.9	8.8	9.4	9.7	5.5	4.3	4.2	3.7	3.7	3.9	3.6	4.0	3.8	4.0	4.0	3.9	4.1	3.7	6.0	4.7	9.9	7.6	9.5	22.9	3.6	6.4
8	3.9	4.3	4.7	4.7	4.5	4.2	4.9	4.9	4.9	5.5	5.2	5.1	5.4	6.1	4.9	4.6	7.4	12.8	17.5	19.0	13.8	13.7	12.6	7.9	19.0	3.9	7.6
9	7.3	5.7	4.9	6.3	6.4	20.3	12.9	11.7	7.1	5.7	5.8	3.4	4.4	4.3	3.4	3.9	3.6	3.3	3.0	3.5	3.5	3.7	3.7	3.6	20.3	3.0	5.9
10	3.7	4.0	3.5	3.9	4.0	5.5	3.6	4.5	3.2	4.6	3.6	3.7	3.9	3.4	3.5	3.6	3.5	4.1	4.4	4.0	3.8	3.3	4.3	4.6	5.5	3.2	3.9
11	5.3	5.6	5.9	4.5	6.8	5.4	6.4	4.9	9.5	8.5	10.9	7.4	5.4	4.7	4.3	4.2	4.4	4.0	4.1	4.5	8.9	10.8	12.4	10.0	12.4	4.0	6.6
12	5.8	4.3	9.4	11.5	18.3	21.9	24.6	16.0	17.6	13.2	12.6	7.4	14.4	16.7	7.1	4.7	7.0	7.8	9.5	13.6	6.0	22.3	5.2	3.5	24.6	3.5	11.7
13	4.5	3.0	4.4	3.2	2.5	3.3	2.2	3.8	2.5	2.8	3.6	5.4	8.7	8.4	8.6	8.9	10.2	34.6	6.2	6.6	12.9	9.1	10.6	6.1	34.6	2.2	7.2
14	7.8	2.8	3.6	4.5	7.0	45.3	9.6	5.8	9.8	7.1	9.2	13.2	7.5	10.1	5.1	5.3	4.2	4.8	4.9	5.6	5.2	4.3	4.0	6.6	45.3	2.8	8.1
15	3.8	5.0	4.1	3.4	3.6	3.5	3.4	4.5	4.7	4.6	4.8	7.0	6.5	6.2	7.4	7.1	7.2	9.5	7.4	8.4	12.4	8.6	3.8	8.1	12.4	3.4	6.0
16	3.9	2.3	3.9	3.0	3.3	2.5	3.4	3.4	2.7	3.4	2.9	8.7	8.7	2.4	5.6	2.9	3.4	4.3	6.8	4.9	9.4	12.1	9.5	6.4	12.1	2.3	5.0
17	7.1	9.3	10.2	7.2	7.8	10.7	3.9	4.0	3.9	3.9	4.2	3.8	4.0	4.1	4.0	4.0	3.9	3.9	4.1	3.9	4.0	3.5	3.6	3.6	10.7	3.5	5.1
18	3.6	3.8	3.8	4.0	3.8	3.6	3.8	3.6	3.9	3.4	3.4	3.4	3.7	3.5	3.6	3.5	4.1	6.8	9.1	12.3	6.8	39.6	11.4	3.3	39.6	3.3	6.3
19	4.7	21.5	7.2	5.5	5.2	4.7	3.6	3.1	3.4	3.6	3.2	3.7	3.9	3.8	4.3	3.9	4.3	3.7	3.7	4.6	3.8	3.5	3.4	3.6	21.5	3.1	4.8
20	3.6	3.5	3.5	3.5	3.7	4.1	7.0	6.0	4.9	3.4	4.8	3.9	4.1	4.8	4.3	4.8	4.0	3.8	3.7	3.3	3.7	3.7	4.3	6.2	7.0	3.3	4.3
21	7.7	4.9	3.4	3.3	3.6	3.7	5.1	4.1	7.9	10.8	3.7	4.2	3.4	4.0	4.3	4.1	4.1	3.7	3.7	3.5	3.3	4.0	3.4	3.3	10.8	3.3	4.5
22	3.6	3.5	3.5	3.6	4.7	4.4	4.1	5.1	4.0	5.3	4.5	4.2	5.5	5.9	5.1	6.0	6.2	6.1	6.0	4.8	4.9	4.9	5.3	11.8	11.8	3.5	5.1
23	22.2	9.3	4.7	13.2	44.0	3.9	8.0	10.6	10.4	5.3	4.0	6.4	8.5	13.2	14.2	30.9	28.0	15.8	13.8	7.9	18.1	12.7	17.8	10.3	44.0	3.9	13.9
24	6.9	4.4	4.2	6.1	29.2	45.9	11.1	6.3	8.4	5.8	6.9	8.1	8.5	12.8	32.6	10.4	25.3	18.7	23.6	14.0	5.6	10.9	16.7	7.6	45.9	4.2	13.7
25	5.2	6.4	6.3	4.8	5.7	4.1	3.9	4.8	4.1	5.3	6.9	6.3	5.0	4.5	4.2	5.0	5.3	5.1	4.8	5.1	7.3	41.6	11.6	9.8	41.6	3.9	7.2
26	9.0	8.5	10.1	15.3	17.4	15.0	8.8	11.6	3.7	5.7	5.7	8.6	14.9	11.6	9.9	8.4	8.2	5.5	5.2	3.9	5.2	5.9	3.2	2.9	17.4	2.9	8.5
27	3.8	4.0	4.5	28.9	9.7	9.5	5.5	5.8	5.8	6.0	8.9	9.0	9.5	8.8	6.8	5.2	7.4	9.0	4.2	3.5	3.3	20.8	8.4	3.2	28.9	3.2	8.0
28	7.2	30.2	6.9	28.8	9.7	11.8	12.4	17.3	25.1	10.4	14.2	15.3	14.4	14.8	10.4	6.4	6.9	6.7	6.6	5.8	5.2	5.9	14.5	11.1	30.2	5.2	12.4
29	9.2	5.2	5.7	4.6	5.1	4.4	3.8	7.3	4.6	4.5	6.3	4.9	6.3	7.8	8.4	7.0	6.6	6.5	6.6	5.8	5.0	8.8	10.9	6.9	10.9	3.8	6.3
30	10.9	4.8	4.2	5.7	7.2	22.1	41.0	17.2	17.8	16.0	19.5	10.8	15.8	19.3	17.2	32.6	19.4	41.5	17.6	14.9	4.9	8.9	5.3	10.5	41.5	4.2	16.0
Max.	22.9	30.2	21.2	28.9	44.0	45.9	41.0	17.3	25.1	16.0	19.5	15.3	15.8	19.3	32.6	32.6	28.0	41.5	24.9	42.7	18.1	41.6	17.8	13.0	45.9		
Min.	2.0	2.3	3.1	3.0	2.5	2.3	2.2	2.8	2.5	2.8	2.2	3.3	2.5	2.4	3.4	2.9	3.4	3.3	3.0	3.3	3.3	3.3	3.2	2.9		2.0	
Avg.	6.6	7.5	5.7	7.5	8.8	9.8	7.6	6.5	6.6	6.0	6.2	6.1	6.7	7.0	7.0	7.1	7.6	9.4	7.7	7.9	6.5	10.0	7.6	6.6			7.3

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	11.5	41.5	56.1	30.4	28.5	25.2	18.2	18.1	9.9	12.5	13.2	16.3	20.9	46.3				16.8	11.4	8.9	12.4	26.6	37.0	28.0	56.1	8.9	23.3
2	14.8	9.9	19.3	9.5	28.8	23.4	4.9	9.3	9.6	8.0	41.1	13.5	16.4	7.7	9.4	11.2	7.7	6.4	6.2	5.8	4.9	4.4	5.5	5.0	41.1	4.4	11.8
3	5.4	7.5	4.6	9.2	6.4	6.2	7.9	8.6	11.8	10.3	8.4	13.0	14.7	24.2	29.5	16.9	18.9	7.3	10.5	16.1	14.1	7.4	11.8	7.5	29.5	4.6	11.6
4	5.9	6.0	7.1	6.6	6.8	9.0	45.1	22.0	37.8	28.0	27.3	12.3	33.2	12.5	10.4	10.2	8.4	8.3	14.6	13.4	15.6	22.2	16.1	10.0	45.1	5.9	16.2
5	44.2	5.3	4.8	5.6	16.8	4.1	4.0	5.4	4.5	8.8	4.9	5.2	6.4	7.3	9.9	10.7	8.5	6.3	6.9	4.1	3.0	2.5	2.1	2.9	44.2	2.1	7.7
6	3.7	6.1	3.7	2.3	3.9	2.9	3.4	3.6	5.0	5.2	7.0	9.2	6.9	6.8	6.7	7.2	6.9	5.5	5.8	4.4	3.4	3.4	2.8	2.7	9.2	2.3	4.9
7	2.6	2.9	3.3	2.9	7.1	11.5	6.0	8.5	12.7	6.6	7.0	7.3	11.4	13.0	11.0	17.6	12.3	9.4	12.8	15.4	6.9	9.7	3.1	6.4	17.6	2.6	8.6
8	48.5	52.5	15.4	52.0	51.7	35.8	7.6	12.2	28.2	33.2	48.2	51.6	13.9	19.3	23.0	11.3	10.1	8.4	9.2	8.4	6.6	9.8	4.6	39.5	52.5	4.6	25.0
9	52.0	19.6	8.3	17.4	19.9	5.7	4.0	4.2	4.0	4.5	5.0	6.6	5.4	8.2	8.1	11.4	10.7	9.4	10.4	8.2	7.8	5.5	7.3	10.3	52.0	4.0	10.6
10	5.9	7.3	9.1	7.6	9.7	6.8	8.4	11.6	15.8	18.0	13.8	17.6	16.9	15.0	17.2	16.7	14.3	11.1	11.2	8.9	5.0	4.3	6.0	4.0	18.0	4.0	10.9
11	3.0	4.7	8.8	9.1	6.9	4.7	5.4	3.9	5.5	5.9	6.6	7.9	9.7	9.8	10.2	9.6	9.8	10.3	7.1	6.5	5.2	3.5	3.4	3.7	10.3	3.0	6.7
12	4.8	7.2	6.4	4.0	6.0	6.4	4.1	4.4	5.8	6.3	6.9	8.2	10.7	8.6	7.4	7.8	8.7	6.6	8.1	6.5	6.2	5.1	6.1	5.5	10.7	4.0	6.6
13	10.1	10.1	4.2	4.8	4.5	4.7	5.1	5.0	6.4	7.0	5.6	4.8	5.6	4.9	7.1	6.7	6.2	6.0	5.2	5.2	5.0	5.0	4.9	5.8	10.1	4.2	5.8
14	8.3	9.5	9.3	5.9	8.3	7.6	26.4	15.3	17.3	9.3	8.3	8.8	8.6	11.3	9.1	6.1	5.8	7.4	5.7	6.0	4.2	4.6	4.6	5.2	26.4	4.2	8.9
15	9.4	6.8	11.6	5.9	6.6	7.3	4.7	9.2	9.3	9.6	16.6	9.2	8.4	7.8	11.2	11.5	12.6	12.7	15.0	41.7	15.0	4.5	9.0	3.6	41.7	3.6	10.8
16	2.5	4.4	7.4	4.3	3.5	3.2	3.0	3.7	4.4	6.1	10.2	17.7	16.2	11.2	16.0	35.3	22.8	6.4	6.1	9.1	6.0	6.4	5.6	4.6	35.3	2.5	9.0
17	4.6	4.8	4.4	4.5	4.2	4.8	4.1	4.7	4.8	4.9	9.5	9.9	10.7	13.0	8.5	7.7	7.0	5.9	6.2	5.5	5.1	4.8	5.0	6.1	13.0	4.1	6.3
18	6.5	4.2	3.4	6.5	6.4	7.0	5.1	4.4	7.0	10.1	15.3	16.1	19.2	23.5	23.9	18.1	27.5	35.3	28.9	33.8	7.6	7.4	12.6	13.4	35.3	3.4	14.3
19	7.4	6.1	4.1	4.8	4.5	2.5	5.0	5.4	4.6	9.4	14.7	8.8	11.6	12.8	10.6	11.0	9.5	9.5	7.9	6.8	4.7	5.0	30.6	13.5	30.6	2.5	8.8
20	15.5	18.4	37.5	32.1	29.5	57.0	30.9	17.9	46.1	56.0	30.3	60.8	38.8	39.0	15.9	13.5	12.8	13.3	11.3	11.3	6.0	5.9	3.8	2.7	60.8	2.7	25.3
21	19.9	34.7	48.5	35.8	12.4	26.1	19.6	32.2	16.3	14.2	62.5	44.2	35.1	22.8	24.3	16.1	10.2	10.6	9.9	7.2	5.3	5.1	5.1	4.7	62.5	4.7	21.8
22	4.5	5.2	4.8	4.4	4.6	8.6	6.6	6.0	8.1	9.6	11.2	6.5	5.1	5.7	8.1	6.3	6.9	7.1	7.1	10.5	8.5	12.8	6.2	8.3	12.8	4.4	7.2
23	8.6	47.6	10.9	7.8	6.6	4.5	15.0	6.8	6.1	7.4	6.4	5.5	5.7	5.4	5.0	6.9	7.1	5.0	5.0	5.0	4.6	5.9	5.1	5.1	47.6	4.5	8.3
24	4.3	4.3	4.0	4.2	3.8	4.2	5.4	5.6	5.8	5.5	5.3	8.4	10.0	13.4	13.5	5.9	5.9	6.8	4.6	5.1	5.8	5.3	6.3	6.3	13.5	3.8	6.2
25	9.3	5.9	8.4	5.9	6.8	8.6	7.7	9.1	8.3	6.9	5.7	5.1	4.7	6.0	7.2	7.5	7.8	5.9	6.3	8.2	13.0	23.7	9.0	4.0	23.7	4.0	8.0
26	3.3	3.6	5.1	36.8	5.8	8.6	6.6	6.6	6.6	4.2	6.0	10.1	8.7	5.7	6.8	5.4	5.2	5.3	5.1	5.7	6.5	5.1	3.9	4.1	36.8	3.3	7.1
27	4.1	4.4	5.3	4.5	4.6	4.9	5.3	7.8	6.3	7.9	9.7	7.9	9.8	10.7	9.0	7.7	8.2	8.0	6.5	5.7	4.8	4.4	5.1	5.0	10.7	4.1	6.6
28	5.3	4.4	4.8	4.3	4.7	3.5	6.1	5.2	9.9	9.4	8.2	8.2	10.2	9.6	8.9	8.4	7.7	7.2	7.9	7.1	6.8	6.9	4.8	4.7	10.2	3.5	6.8
29	3.7	7.1	14.0	9.7	4.7	2.4	4.1	5.3	7.0	4.9	8.5	13.9	28.6	39.8	46.5	25.9	48.8	10.7	18.8	20.7	7.9	7.7	7.0	13.1	48.8	2.4	15.0
30	21.7	26.5	19.4	23.9	2.8	4.6	6.7	8.6	9.8	42.9	44.7	22.4	18.1	6.8	8.5	8.7	9.8	7.9	6.3	7.3	6.7	7.0	8.0	9.8	44.7	2.8	14.1
31	6.2	7.3	5.7	5.5	5.0	6.1	5.5	5.4	5.6	6.4	6.1	7.9	6.8	7.9	11.9	16.8	13.7	7.7	8.2	8.9	7.2	6.7	5.2	6.1	16.8	5.0	7.5
Max.	52.0	52.5	56.1	52.0	51.7	57.0	45.1	32.2	46.1	56.0	62.5	60.8	38.8	46.3	46.5	35.3	48.8	35.3	28.9	41.7	15.6	26.6	37.0	39.5	62.5		
Min.	2.5	2.9	3.3	2.3	2.8	2.4	3.0	3.6	4.0	4.2	4.9	4.8	4.7	4.9	5.0	5.4	5.2	5.0	4.6	4.1	3.0	2.5	2.1	2.7		2.1	
Avg.	11.5	12.4	11.6	11.9	10.4	10.2	9.4	8.9	11.0	12.2	15.3	14.4	13.8	14.1	13.2	11.9	11.7	9.2	9.2	10.2	7.2	7.7	8.0	8.1			11.0

Total Hours in Month 744

Hours Data Available

741

Data Recovery 99.6%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.0	6.1	8.3	10.9	11.9	8.6	9.3	8.1	10.0	9.6	5.8	6.4	5.1	5.9	7.6	5.9	6.6	7.1	5.8	8.0	5.9	5.7	5.5	4.7	11.9	4.7	7.2
2	4.9	5.3	5.5	4.0	4.5	3.8	4.8	5.8	6.9	7.5	9.5	8.7	8.2	12.1	13.7	14.8	13.3	14.6	15.2	12.4	7.7	7.3	5.6	6.2	15.2	3.8	8.4
3	8.4	5.8	15.5	8.7	5.2	4.8	7.0	9.8	9.5	12.0	16.3	16.9	23.1	28.1	25.1	33.3	34.2	30.5	28.4	47.3	14.1	10.7	5.2	4.2	47.3	4.2	16.8
4	2.3	2.9	2.5	2.3	3.0	3.3	3.3	3.6	4.1	5.1	5.4	4.1	5.2	6.4	8.7	13.6	17.9	28.8	41.2	11.0	5.6	6.1	6.9	6.0	41.2	2.3	8.3
5	6.0	6.2	5.9	5.2	5.9	5.4	12.0	7.6	6.3	5.1	5.4	5.6	5.1	5.4	5.5	5.7	6.1	6.0	5.8	4.9	5.1	5.6	5.1	4.6	12.0	4.6	5.9
6	5.9	9.7	8.5	6.6	4.7	5.1	12.3	10.3	19.2	44.5	19.5	15.5	16.2	13.1	23.8	9.8	9.6	8.8	18.6	19.9	10.2	16.0	9.5	13.5	44.5	4.7	13.8
7	13.9	12.7	25.5	25.8	14.0	8.1	11.1	12.9	10.8	10.4	12.2	10.2	9.7	13.4	12.3	6.0	6.2	6.7	5.0	6.1	6.1	5.0	4.6	7.5	25.8	4.6	10.7
8	8.5	5.7	9.5	6.8	7.8	8.0	4.8	9.7	8.2	7.4	21.8	28.5	24.7	19.2	14.4	11.2	9.3	11.3	6.4	5.6	6.0	5.3	4.5	4.5	28.5	4.5	10.4
9	19.9	14.7	6.9	4.6	12.5	7.8	15.1	9.3	6.5	7.8	12.2	12.5	12.9	17.6	11.7	19.6	25.1	33.6	35.9	10.1	6.5	3.6	2.3	2.7	35.9	2.3	13.0
10	2.4	2.2	2.6	2.7	3.1	2.9	2.0	2.4	3.7	5.7	6.7	8.0	10.9	12.3	17.5	17.3	16.6	17.4	11.3	15.2	10.4	25.4	12.2	9.5	25.4	2.0	9.2
11	29.6	17.6	9.6	8.3	6.6	10.7	7.1	5.8	6.0	8.9	8.7	13.0	12.0	11.5	9.5	12.2	8.8	8.6	6.8	6.4	7.5	5.6	5.9	5.0	29.6	5.0	9.6
12	4.9	5.2	5.9	5.8	6.4	7.6	5.4	6.6	5.1	6.1	6.5	6.2	8.6	9.2	8.0	8.5	9.5	12.1	9.6	12.4	9.8	9.0	3.7	13.0	13.0	3.7	7.7
13	8.3	27.0	9.0	5.0	13.2	9.5	8.1	9.9	7.6	13.3	17.0	21.8	28.4	12.8	9.9	28.5	50.6	18.4	11.3	9.4	4.4	5.0	5.5	5.2	50.6	4.4	14.1
14	3.7	3.0	3.5	3.9	2.5	3.3	4.0	3.6	3.9	6.2	7.6	10.1	26.4	19.8	32.2	14.0	17.0	18.9	14.3	9.2	5.7	3.8	3.2	3.4	32.2	2.5	9.3
15	3.2	5.1	5.7	4.1	2.8	4.2	4.1	3.5	4.1	4.8	6.6	9.4	11.5	11.9	14.8	12.1	13.4	9.9	8.6	7.0	6.0	4.2	3.1	4.2	14.8	2.8	6.9
16	3.2	4.1	4.6	4.6	4.4	3.3	3.9	5.6	5.2	7.5	11.2	8.7	10.3	8.8	11.7	10.2	10.6	12.2	8.4	6.7	5.7	4.5	4.2	4.6	12.2	3.2	6.8
17	5.4	6.1	4.8	4.8	5.0	5.3	6.1	14.5	8.1	13.0	15.8	57.5	11.2	15.0	21.6	13.8	15.6	15.9	8.7	11.5	6.7	6.6	4.6	4.1	57.5	4.1	11.7
18	4.8	4.9	3.4	6.2	4.1	5.4	5.7	6.0	9.9	9.9	11.6	11.8	50.5	33.7	53.8	37.3	17.0	11.0	20.9	30.7	7.7	41.8	10.2	15.5	53.8	3.4	17.2
19	3.0	3.0	2.2	3.0	3.8	3.6	3.1	5.5	3.9	5.8	7.4	8.2	7.0	9.3	9.3	9.2	10.8	10.5	8.5	6.5	6.1	4.8	4.5	4.4	10.8	2.2	6.0
20	3.5	3.0	3.1	3.8	3.3	2.9	3.5	3.8	5.0	5.9	6.4	8.2	7.8	9.7	9.3	10.5	8.3	8.6	6.3	7.0	3.8	4.2	3.4	3.8	10.5	2.9	5.6
21	5.1	8.0	9.7	6.0	3.5	4.3	3.8	3.4	4.6	6.2	8.9	9.0	10.3	12.4	9.3	9.5	11.3	7.5	8.4	8.5	10.1	3.9	4.5	7.1	12.4	3.4	7.3
22	23.0	58.2	52.5	49.6	25.7	19.9	29.5	13.9	16.3	18.0	13.7	10.4	11.8	11.5	10.3	10.8	11.1	7.2	7.5	6.5	7.8	8.2	5.4	5.8	58.2	5.4	18.1
23	5.3	5.7	5.8	4.9	4.5	4.8	4.5	4.6	4.8	5.0	5.4	5.1	4.9	4.7	4.9	4.9	4.4	4.8	4.5	4.7	4.8	4.4	4.8	4.5	5.8	4.4	4.9
24	4.4	4.6	4.6	4.3	4.4	4.5	4.8	5.1	5.7	7.6	6.6	7.3	5.1	5.0	4.9	5.2	6.6	5.3	6.2	5.8	6.3	7.0	5.7	6.4	7.6	4.3	5.6
25	5.5	5.8	5.4	5.6	5.7	5.1	5.3	4.5	5.4	6.6	7.4	5.9	6.1	5.7	6.6	5.9	5.9	7.1	6.5	5.4	4.7	5.1	4.8	4.2	7.4	4.2	5.7
26	4.2	5.4	4.9	5.6	4.1	4.5	4.3	6.1	9.1	9.2	10.8	10.9	10.7	22.5	20.4	35.8	34.8	33.7	34.8	42.6	8.8	5.4	4.1	4.7	42.6	4.1	14.1
27	6.1	6.8	5.1	3.8	5.2	1.7	4.5	3.3	7.6	14.3	44.6	45.0	20.7	19.9	14.3	12.8	11.9	10.5	11.6	10.2	6.9	3.9	9.6	32.1	45.0	1.7	13.0
28	51.8	29.4	17.2	12.2	25.7	17.0	13.0	25.0	30.2	9.1	14.1	16.1	8.1	10.5	7.6	9.4	8.9	8.9	8.7	6.3	5.4	4.8	4.5	6.0	51.8	4.5	14.6
29	8.1	10.1	4.6	13.1	13.5	8.8	12.2	7.8	11.3	11.9	8.9	15.4	15.6	17.9	19.1	18.3	16.4	12.0	11.0	10.2	5.4	7.3	17.1	13.1	19.1	4.6	12.0
30	15.7	15.6	16.1	6.5	48.3	25.7	7.5	7.4	6.1	20.9	19.8	14.6	17.0	18.1	15.2	11.9	13.1	11.3	8.5	11.6	8.1	6.0	5.6	4.9	48.3	4.9	14.0
Max.	51.8	58.2	52.5	49.6	48.3	25.7	29.5	25.0	30.2	44.5	44.6	57.5	50.5	33.7	53.8	37.3	50.6	33.7	41.2	47.3	14.1	41.8	17.1	32.1	58.2		
Min.	2.3	2.2	2.2	2.3	2.5	1.7	2.0	2.4	3.7	4.8	5.4	4.1	4.9	4.7	4.9	4.9	4.4	4.8	4.5	4.7	3.8	3.6	2.3	2.7		1.7	
Avg.	9.2	10.0	8.9	8.0	8.8	7.0	7.4	7.5	8.2	10.2	11.8	13.7	13.5	13.5	14.4	13.9	14.4	13.3	12.8	12.0	7.0	7.9	5.9	7.2		10.3	

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.7	9.2	3.9	4.2	13.6	5.6	6.4	5.2	5.6	8.5	10.3	11.2	12.8	16.8	9.1	8.1	10.0	9.0	5.6	4.9	4.4	4.4	4.6	44.6	3.9	9.7	
2	10.7	10.3	6.2	11.0	10.8	12.8	31.7	27.7	42.2	10.3	11.6	10.0	12.8	13.0	10.7	15.4	13.1	12.6	11.8	7.7	8.3	5.6	5.6	4.0	42.2	4.0	13.2
3	4.3	4.6	8.0	21.4	26.4	9.8	5.1	7.2	6.9	8.5	12.8	13.4	11.7	16.5	19.0	33.5	15.8	10.4	7.1	5.5	5.0	6.0	6.9	5.9	33.5	4.3	11.3
4	5.1	5.1	5.3	6.6	6.3	4.9	7.9	5.2	4.9	4.8	6.7	6.3	7.1	6.3	6.4	6.7	6.4	4.2	5.0	5.5	7.2	4.0	4.9	4.8	7.9	4.0	5.7
5	4.7	4.7	5.4	3.9	4.8	10.1	13.3	11.5	13.2	9.7	10.4	11.5	12.1	10.4	9.4	12.6	8.8	15.3	38.5	5.6	5.3	5.5	5.5	6.4	38.5	3.9	9.9
6	6.6	5.2	5.7	5.3	4.8	4.6	5.3	4.9	6.0	9.2	9.3	6.2	10.5	15.4	11.7	13.2	12.0	15.9	14.5	11.0	15.8	24.9	11.1	38.3	38.3	4.6	11.1
7	11.1	6.8	3.9	6.7	8.0	10.1	8.6	11.2	35.5	12.2	27.8	38.6	32.8	40.8	31.5	18.7	19.4	17.9	19.1	22.0	27.6	20.9	12.3	9.4	40.8	3.9	18.9
8	8.4	8.8	17.8	40.4	36.8	20.5	25.6	9.6	6.5	13.1	13.9	8.5	6.4	6.6	8.3	7.1	6.9	7.2	7.3	5.7	5.2	5.5	4.3	4.0	40.4	4.0	11.8
9	4.9	6.4	7.3	5.4	7.3	3.9	3.9	4.2	5.0	6.7	10.9	14.3	13.4	25.3	9.7	38.5	29.1	16.5	15.3	18.9	12.7	12.9	11.9	4.9	38.5	3.9	12.0
10	3.9	2.5	4.1	6.5	14.4	45.5	11.8	13.2	12.5	7.8	8.5	8.3	19.3	30.2	8.8	7.5	11.6	6.6	6.3	6.2	6.0	5.8	4.9	5.8	45.5	2.5	10.7
11	5.0	7.0	6.4	4.6	3.7	4.1	5.0	5.5	5.6	9.3	9.2	9.9	11.2	12.2	8.9	12.0	12.2	11.9	11.6	8.9	6.1	5.1	5.5	10.1	12.2	3.7	8.0
12	8.5	13.5	13.1	15.1	47.2	5.5	5.9	9.4	11.4	14.5	17.3	17.5	16.2	20.0	15.6	31.3	11.0	13.0	14.7	7.5	6.6	6.7	4.2	4.0	47.2	4.0	13.7
13	4.5	4.8	5.0	5.8	5.4	5.5	6.6	5.7	6.4	5.2	8.2	7.1	5.3	5.8	6.1	6.6	6.4	7.2	6.9	4.8	5.1	5.2	4.7	5.5	8.2	4.5	5.8
14	6.0	6.1	7.1	6.8	4.8	5.3	6.8	10.5	5.0	7.9	9.7	9.7	11.0	9.6	8.2	7.3	6.8	7.0	6.1	5.9	6.1	7.0	5.7	4.9	11.0	4.8	7.1
15	7.7	6.3	10.7	11.6	13.3	15.9	18.6	22.5	18.6	12.2	10.9	12.1	11.3	30.8	14.4	7.5	7.1	7.2	6.4	5.3	5.4	4.0	4.8	7.9	30.8	4.0	11.3
16	12.7	8.4	49.7	8.5	8.4	6.7	4.3	4.0	6.4	5.7	5.5	7.8	10.5	13.8	11.9	8.5	7.8	9.4	11.3	7.5	6.7	5.4	4.1	2.6	49.7	2.6	9.5
17	3.3	3.4	3.9	3.3	2.3	1.8	2.3	4.0	4.2	8.8	13.9	16.4	40.4	43.7	29.1	20.2	11.8	11.2	8.0	6.4	6.4	7.2	6.4	5.6	43.7	1.8	10.9
18	5.8	6.5	10.7	8.7	7.3	6.2	5.9	11.2	11.0	10.6	12.0	21.9	31.7	15.9	16.3	19.0	6.6	10.0	6.3	6.5	10.1	18.8	11.4	35.7	35.7	5.8	12.7
19	10.9	4.7	5.2	3.5	3.0	6.7	6.4	5.3	4.7	5.2	6.0	9.4	16.5	20.7	33.5	46.9	25.9	19.8	10.7	7.4	10.0	12.2	8.6	8.7	46.9	3.0	12.2
20	15.2	8.6	12.8	38.4	56.8	29.6	65.8	16.0	17.7	16.1	56.7	9.9	18.7	15.5	17.0	44.6	19.9	29.6	11.7	7.7	6.3	4.8	4.2	7.5	65.8	4.2	22.1
21	15.3	31.2	28.1	33.2	12.9	10.6	5.4	25.0	19.7	6.5	11.0	24.7	52.7	11.4	10.9	7.6	6.0	6.5	5.8	8.0	9.5	8.7	7.3	11.0	52.7	5.4	15.4
22	12.3	7.8	6.7	7.6	7.3	7.1	6.2	6.6	7.7	7.0	6.7	8.1	6.6	8.7	8.0	7.5	8.4	7.2	5.8	5.1	6.4	6.4	7.8	4.6	12.3	4.6	7.2
23	4.2	5.0	4.8	6.3	10.0	16.9	14.7	11.7	7.4	7.9	6.6	8.1	8.1	7.2	6.3	5.1	4.8	4.9	5.1	5.4	5.0	5.1	5.1	4.5	16.9	4.2	7.1
24	4.4	4.5	4.3	4.1	4.4	4.5	4.7	5.0	6.8	4.4	5.1	5.9	6.1	9.5	9.0	9.0	6.8	7.4	9.2	9.8	9.8	16.0	6.5	8.8	16.0	4.1	6.9
25	10.5	7.8	16.3	32.1	23.0	6.2	23.0	7.2	5.6	6.1	5.4	6.2	12.6	8.2	9.7	12.7	7.2	6.6	8.5	6.7	14.2	7.3	6.0	9.9	32.1	5.4	10.8
26	10.0	18.1	42.9	53.6	4.2	3.8	4.3	3.4	4.1	3.6	4.9	10.2	13.3	14.6	15.4	24.2	35.0	44.7	24.8	6.4	4.9	7.6	30.0	12.6	53.6	3.4	16.5
27	13.1	7.2	4.9	4.0	4.3	2.9	3.2	2.6	3.1	4.3	5.8	8.6	10.6	8.5	8.4	11.5	9.4	12.6	15.4	8.3	6.9	11.9	8.8	11.0	15.4	2.6	7.8
28	4.2	3.5	4.0	3.7	5.2	4.1	4.3	8.2	4.1	5.2	5.0	7.5	12.1	11.8	8.6	10.2	9.8	8.2	7.1	8.9	5.4	3.6	4.6	5.3	12.1	3.5	6.4
29	9.3	10.1	8.1	7.8	4.3	4.0	3.9	5.3	5.4	5.4	8.5	11.4	12.2	9.4	8.8	8.9	11.5	12.3	10.0	11.2	7.3	4.1	5.6	4.7	12.3	3.9	7.9
30	3.6	4.1	4.1	5.7	4.7	5.7	4.7	9.3	10.2	15.2	39.5	16.1	12.7	20.0	33.0	21.5	8.3	11.3	8.7	7.2	7.8	7.5	10.2	9.3	39.5	3.6	11.7
31	8.9	11.6	22.4	19.6	7.8	7.8	13.7	5.0	6.6	5.8	5.9	6.4	6.6	6.8	7.1	7.0	10.3	9.8	9.8	7.2	6.9	6.6	5.6	5.1	22.4	5.0	8.8
Max.	15.3	31.2	49.7	53.6	56.8	45.5	65.8	27.7	42.2	16.1	56.7	38.6	52.7	43.7	33.5	46.9	35.0	44.7	38.5	22.0	27.6	24.9	44.6	38.3	65.8		
Min.	3.3	2.5	3.9	3.3	2.3	1.8	2.3	2.6	3.1	3.6	4.9	5.9	5.3	5.8	6.1	5.1	4.8	4.2	5.0	4.8	4.4	3.6	4.1	2.6		1.8	
Avg.	7.7	7.9	10.9	12.8	12.0	9.3	10.8	9.1	10.0	8.3	12.1	11.7	15.0	15.6	13.2	15.8	11.8	12.0	10.8	7.9	8.1	8.3	8.7	8.9			10.8

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.6	5.2	5.3	5.0	5.2	5.3	5.6	5.1	5.1	4.5	4.4	4.7	5.1	6.0	6.2	5.4	5.7	6.1	6.1	5.5	4.8	4.9	4.5	4.7	6.2	4.4	5.2
2	5.1	5.3	4.9	4.5	5.1	4.7	4.9	5.1	4.8	4.9	4.8	5.0	4.9	4.8	5.3	5.1	5.0	5.2	5.0	5.0	4.8	5.0	5.1	6.1	6.1	4.5	5.0
3	6.1	5.8	5.9	5.6	6.2	5.6	5.3	5.1	4.8	5.6	6.5	5.2	5.4	5.3	5.3	5.5	5.6	5.3	5.2	5.6	5.0	4.8	5.3	4.7	6.5	4.7	5.4
4	4.4	4.6	5.1	4.9	4.6	4.8	5.2	5.5	5.1	5.1	5.0	5.4	5.8	6.3	6.0	6.8	5.8	5.2	5.0	4.7	4.9	6.2	6.1	5.1	6.8	4.4	5.3
5	5.7	6.4	5.7	5.2	5.4	9.5	10.7	6.6	6.8	6.6	5.5	6.4	7.7	5.8	6.1	6.1	5.7	6.4	4.8	4.0	3.9	4.7	5.1	5.0	10.7	3.9	6.1
6	4.0	3.9	3.3	4.6	9.0	8.5	4.3	3.3	4.5	4.9	5.5	5.4	5.4	5.6	5.1	7.0	5.0	5.6	6.0	4.1	4.4	3.7	3.6	3.4	9.0	3.3	5.0
7	3.9	5.2	4.7	4.2	3.5	4.2	4.5	3.7	4.9	5.2	7.0	6.8	6.4	7.7	8.1	8.2	7.1	7.6	7.2	6.0	5.4	4.3	3.4	5.5	8.2	3.4	5.6
8	5.9	4.9	6.3	7.9	4.1	5.4	5.7	5.1	5.1	5.1	5.5	7.1	8.0	9.3	9.8	13.9	9.6	12.0	7.1	6.4	4.2	5.0	3.1	2.7	13.9	2.7	6.6
9	2.3	2.9	3.2	2.9	2.9	3.1	3.2	2.3	3.7	6.0	10.4	8.6	22.8	45.6	42.0	47.9	38.8	25.5	10.0	8.8	5.9	13.8	12.9	14.6	47.9	2.3	14.2
10	9.9	8.5	3.7	3.7	3.5	3.5	6.0	20.1	25.1	11.1	14.4	19.9	23.4	27.5	26.1	17.3	17.0	11.0	7.9	5.9	3.9	2.8	3.0	3.4	27.5	2.8	11.6
11	6.9	4.9	21.1	3.1	9.8	9.8	11.4	8.6	7.9	7.1	13.6	63.9	41.5	25.3	30.3	15.5	19.6	9.6	8.6	6.1	10.2	11.7	9.3	19.6	63.9	3.1	15.6
12	22.4	35.5	10.1	22.0	19.7	21.9	9.8	30.8	22.0	14.4	41.7	49.7	14.6	27.1	17.4	25.2	10.0	23.4	9.3	9.8	6.1	19.3	3.5	3.7	49.7	3.5	19.6
13	24.3	28.3	16.3	15.8	8.3	31.6	31.9	17.1	14.5	18.8	19.2	21.1	14.3	15.2	15.0	10.8	15.7	9.3	11.7	9.9	10.2	6.7	6.6	6.3	31.9	6.3	15.8
14	5.6	5.1	5.3	28.9	68.3	54.3	55.6	9.9	7.7	6.0	5.6	6.2	5.9	8.1	7.3	11.9	14.9	12.2	7.6	18.0	11.6	13.5	5.9	4.5	68.3	4.5	15.8
15	3.9	3.8	4.7	4.0	4.4	3.9	4.0	3.8	4.3	4.3	4.8	5.2	5.4	5.6	5.7	6.2	5.1	5.2	5.2	4.7	5.5	3.1	4.1	6.0	6.2	3.1	4.7
16	3.7	4.7	8.1	7.7	26.4	16.5	30.7	44.2	14.3	8.3	41.4	16.9	25.3	39.0	44.9	46.8	61.4	20.8	14.7	6.4	7.7	8.7	7.3	8.8	61.4	3.7	21.4
17	5.1	4.4	5.1	6.7	6.5	6.8	10.6	4.7	6.2	9.1	6.8	7.5	8.1	8.2	9.2	7.2	7.9	6.3	5.7	5.5	4.7	4.7	4.2	4.5	10.6	4.2	6.5
18	4.0	4.4	4.6	5.0	4.8	4.5	4.3	4.4	4.3	4.7	4.7	4.3	4.5	4.4	4.9	4.6	4.9	5.3	5.6	5.2	4.9	4.9	5.2	4.8	5.6	4.0	4.7
19	5.1	5.0	4.8	4.7	5.1	5.3	6.0	5.8	5.2	4.8	5.6	5.1	4.8	4.5	4.7	4.9	4.6	4.7	4.9	5.2	4.9	5.2	5.0	4.7	6.0	4.5	5.0
20	4.9	5.4	5.1	4.8	5.1	5.0	5.3	5.3	5.0	4.5	5.1	5.8	6.4	6.4	5.9	6.3	5.9	7.3	6.0	4.6	4.7	4.8	4.3	6.4	7.3	4.3	5.4
21	4.9	4.0	4.1	4.0	4.4	3.9	4.4	4.2	4.2	4.5	4.9	4.8	4.6	4.5	4.9	5.2	5.3	5.6	6.1	5.1	4.7	5.2	4.2	4.2	6.1	3.9	4.7
22	4.3	4.4	4.1	3.7	3.6	4.2	4.5	4.3	4.5	4.7	4.7	5.3	4.9	5.4	5.2	4.7	5.0	5.2	4.6	4.5	4.3	4.0	3.7	5.7	5.7	3.6	4.6
23	4.9	4.5	5.8	10.2	26.7	22.0	32.6	27.9	11.3	4.0	6.4	9.3	5.1	7.2	7.9	7.2	5.2	6.2	4.4	4.2	2.9	3.0	2.8	4.6	32.6	2.8	9.4
24	3.0	5.1	3.5	3.2	3.0	2.8	3.2	3.9	4.9	5.4	5.7	7.0	7.4	7.2	10.5	23.8	6.5	18.7	9.3	10.4	10.2	8.5	8.7	8.8	23.8	2.8	7.5
25	5.7	13.3	9.6	11.6	12.7	4.8	10.2	19.1	16.1	7.2	10.5	12.6	9.3	17.3	9.5	10.2	16.2	8.9	6.7	8.3	10.5	5.0	8.5	16.5	19.1	4.8	10.8
26	9.3	6.0	4.5	4.8	8.0	3.8	5.8	6.9	4.2	7.0	13.8	8.9	12.7	9.0	8.6	9.4	7.3	7.1	8.7	13.0	9.7	7.9	10.8	5.2	13.8	3.8	8.0
27	5.1	4.6	4.8	4.7	9.5	15.7	13.3	21.5	7.5	7.1	12.0	12.8	9.4	11.2	12.9	11.2	20.4	8.5	9.9	12.3	9.5	19.2	14.0	7.9	21.5	4.6	11.0
28	10.9	3.8	9.1	15.1	53.2	26.1	46.7	19.5	21.3	36.1	30.5	25.7	36.2	39.9	15.3	20.7	34.7	14.7	9.7	5.0	2.9	3.7	6.8	4.2	53.2	2.9	20.5
29	4.2	6.9	8.7	6.6	7.8	6.1	5.4	4.1	4.3	5.1	6.0	6.1	4.4	7.0	8.0	7.8	8.2	8.1	5.5	5.8	3.8	3.8	4.1	2.8	8.7	2.8	5.9
30	3.7	5.6	5.0	4.2	3.4	3.1	3.0	4.2	4.3	4.0	5.2	8.4	11.9	10.9	11.6	11.6	12.1	14.9	17.9	13.4	12.3	7.3	5.3	5.2	17.9	3.0	7.8
31	2.9	6.4	2.6	5.2	4.3	4.1	4.7	4.6	5.9	6.7	6.5	9.8	19.5	21.8	26.3	19.6	37.6	31.4	33.4	42.8	14.5	19.0	8.0	4.9	42.8	2.6	14.3
Max.	24.3	35.5	21.1	28.9	68.3	54.3	55.6	44.2	25.1	36.1	41.7	63.9	41.5	45.6	44.9	47.9	61.4	31.4	33.4	42.8	14.5	19.3	14.0	19.6	68.3		
Min.	2.3	2.9	2.6	2.9	2.9	2.8	3.0	2.3	3.7	4.0	4.4	4.3	4.4	4.4	4.7	4.6	4.6	4.7	4.4	4.0	2.9	2.8	2.8	2.7		2.3	
Avg.	6.4	7.1	6.3	7.2	11.1	10.0	11.6	10.2	8.1	7.5	10.4	12.0	11.3	13.2	12.4	12.7	13.3	10.4	8.4	8.3	6.5	7.2	5.9	6.3			9.3

Total Hours In Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.								
1	34.8	25.5	11.7	13.6	16.5	5.6	7.6	32.8	29.9	8.6	5.7	9.0	14.1	10.0	12.6	9.9	11.3	11.3	7.2	6.7	4.4	4.4	4.2	3.5	4.4	34.8	3.5	12.5							
2	4.4	4.9	3.5	4.7	5.4	7.1	4.9	4.7	7.6	10.0	12.4	13.9	13.5	52.0	48.9	1.9	2.2	0.9	0.2	0.2	0.1	0.1	0.1	0.1	52.0	0.1	8.5								
3	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.4								14.5	0.0	31.8	4.5	4.5	4.5	4.6	4.6	4.9	31.8	0.0	4.5								
4	5.7	5.5	5.3	11.8	8.1	10.1	45.0	10.2	19.3	0.0	82.6	73.3	71.6	21.5	17.3	25.4	23.5	7.6	11.1	8.5	6.1	3.0	8.1	3.1	82.6	0.0	20.2								
5	7.3	9.4	11.9	8.7	8.0	8.5	14.1	12.6	11.1	89.2	0.0	50.7	22.9	19.8	18.0	43.7	24.2	31.4	14.8	5.2	32.4	34.9	10.4	55.7	89.2	0.0	22.7								
6	43.8	14.7	7.1	91.2	93.3	33.3	50.5	17.4	12.0	7.1	12.0	7.7	10.7	8.4	9.2	19.0	12.4	7.5	6.6	4.1	7.7	10.7	19.0	20.1	93.3	4.1	21.9								
7	12.1	7.8	7.7	7.6	6.5	7.5	7.2	5.5	6.9	4.9	5.0	4.7	4.6	5.0	4.7	4.9	4.9	5.0	5.2	5.1	5.1	4.8	4.9	4.9	12.1	4.6	5.9								
8	5.0	5.1	5.0	5.2	6.0	6.1	8.6	6.0	6.4	8.5	6.4	9.0	6.9	7.2	6.9	10.1	6.9	11.9	12.8	14.1	9.1	14.1	5.5	6.0	14.1	5.0	7.9								
9	5.2	6.8	5.3	5.1	5.1	6.6	8.4	6.8	5.6	6.4	6.2	7.7	7.6	8.2	7.9	7.7	9.2	16.7	50.5	35.4	24.1	6.4	11.0	10.4	50.5	5.1	11.3								
10	42.3	35.6	20.7	18.3	15.7	37.9	17.5	47.7	53.8	52.0	13.1	9.5	8.9	8.4	7.1	5.4	5.3	9.0	7.4	6.8	5.3	4.8	4.6	5.6	53.8	4.6	18.4								
11	5.0	5.4	5.4	4.9	5.0	5.0	5.7	5.1	5.1	5.8	6.7	5.1	5.4	5.2	5.6	5.7	5.3	5.5	5.0	5.4	5.0	4.8	5.2	5.5	6.7	4.8	5.3								
12	4.6	4.5	4.9	4.9	7.4	7.6	5.4	5.5	11.2	9.6	11.6	14.6	12.8	10.5	11.8	11.1	7.8	9.5	9.7	6.1	6.4	6.7	9.0	9.3	14.6	4.5	8.4								
13	21.3	8.1	4.7	5.0	7.9	5.8	5.1	6.1	10.0	14.6	11.0	10.8	9.8	9.9	10.4	11.3	6.8	18.8	8.2	26.3	10.0	8.9	15.8	23.7	26.3	4.7	11.3								
14	7.8	17.2	11.2	8.9	7.1	6.6	6.7	45.4	18.9	94.9	93.2	38.7	48.9	28.7	22.5	28.4	23.0	7.5	9.9	3.7	3.0	2.2	2.5	4.1	94.9	2.2	22.5								
15	6.5	8.7	3.0	3.3	3.8	3.7	7.5	4.9	4.0	7.9	4.8	7.3	6.9	10.8	6.4	7.9	8.2	8.0	6.2	3.9	2.7	5.2	7.2	5.8	10.8	2.7	6.0								
16	3.4	4.5	4.3	3.8	4.5	9.7	5.5	7.8	7.6	9.6	9.6	11.2	10.7	10.2	11.4	10.4	11.0	7.7	11.8	17.7	4.9	4.2	5.2	11.9	17.7	3.4	8.3								
17	82.1	56.1	66.6	77.4	40.3	18.0	8.1	4.8	10.7	11.1	12.3	9.2	16.4	6.7	10.9	10.9	15.9	16.6	9.5	17.2	6.4	7.0	7.9	8.0	82.1	4.8	22.1								
18	9.5	8.0	5.7	7.6	7.9	6.5	7.3	18.8	12.0	7.2	5.6	5.7	4.8	5.1	5.4	5.5	5.6	5.5	5.0	6.2	5.5	6.4	15.7	14.4	18.8	4.8	7.8								
19	10.9	8.2	7.0	17.8	9.3	9.9	13.8	9.3	16.5	11.4	8.9	8.7	7.8	8.1		7.8	6.2	7.1	8.2	7.8	7.5	10.5	9.6	8.5	17.8	6.2	9.6								
20	7.6	6.6	7.1	6.4	5.7	5.6	5.3	6.0	5.4	5.9	6.1	9.6	5.7	10.2	7.6	11.1	7.9	13.6	20.9	20.7	15.9	44.4	24.6	4.5	44.4	4.5	11.0								
21	8.7	4.9	11.3	13.9	3.4	5.8	4.2	3.8	3.3	4.2	4.4	6.1	5.9	6.4	6.8	8.4	6.7	6.9	8.1	5.3	5.3	6.8	11.8	7.0	13.9	3.3	6.6								
22	4.5	8.7	9.4	21.7	16.3	10.9	7.0	14.4	63.3	35.9	10.0	4.1	6.3	6.8	5.4	4.9	4.7	9.4	5.5	5.2	4.9	4.7	5.4	5.2	63.3	4.1	11.4								
23	5.8	6.8	15.1	11.0	20.8	22.1	7.5	9.2	22.3	6.2	18.3	12.4	7.3	6.6	6.0	5.8	6.3	5.4	9.3	7.4	14.9	6.0	8.6	8.3	22.3	5.4	10.4								
24	7.7	5.2	7.9	17.6	6.7	10.2	12.1	7.3	6.2	6.1	5.5	6.0	10.4	13.6	22.9	14.7	18.5	14.9	10.0	17.7	10.9	12.9	11.1	11.7	22.9	5.2	11.2								
25	21.5	9.0	6.8	8.9	6.7	6.5	6.6	5.6	5.2	5.7	10.3	12.6	14.2	8.7	11.3	9.4	15.8	7.0	10.9	10.1	7.5	7.1	7.4	4.9	21.5	4.9	9.2								
26	6.5	6.9	8.0	6.5	7.4	13.3	19.8	79.0	35.6	63.7	19.6	13.1	24.3	33.6	51.8	62.7	73.4	11.2	13.2	4.2	6.2	6.2	4.4	3.5	79.0	3.5	23.9								
27	3.4	3.5	4.6	11.9	27.5	40.6	30.4	58.3	35.6	16.7	38.2	17.3	17.1	11.2	11.1	8.2	12.0	6.1	5.4	6.0	5.2	4.7	4.8	4.5	58.3	3.4	16.0								
28	4.8	5.2	4.9	4.9	5.1	4.6	5.6	5.8	5.4	5.4	5.7	6.3	5.3	5.1	5.7	7.8	11.9	11.6	9.0	10.4	17.5	85.3	61.2	13.6	85.3	4.6	12.8								
29	2.7	5.5	2.1	3.5	3.4	3.7	3.7	6.2	8.2	5.3	9.6	7.4	90.7	15.0	15.9	9.3	6.8	19.0	10.6	10.6	38.9	11.5	8.9	13.6	90.7	2.1	13.0								
30	8.3	9.0	8.9	12.1	9.0	8.2	7.1	9.3	6.9	6.3	7.8	30.1	6.6	11.0	10.9	10.3	16.5	11.1	11.8	9.3	23.7	34.2	19.0	9.9	34.2	6.3	12.4								
Max.	82.1	56.1	66.6	91.2	93.3	40.6	50.5	79.0	63.3	94.9	93.2	73.3	90.7	52.0	51.8	62.7	73.4	31.8	50.5	35.4	38.9	85.3	61.2	55.7	94.9										
Min.	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.4	3.3	0.0	0.0	4.1	4.6	5.0	4.7	1.9	0.0	0.9	0.2	0.2	0.1	0.1	0.1	0.1		0.0									
Avg.	13.1	10.2	9.2	13.9	12.3	10.9	11.3	15.2	15.4	17.9	15.3	14.5	16.5	12.5	13.3	13.1	12.3	11.2	10.3	9.7	10.0	12.2	10.6	9.8			12.5								
Total Hours in Month										720										712										Data Recovery					98.9%

Total Hours in Month 720

Hours Data Available 712

Data Recovery 98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	15.0	5.7	9.0	13.4	17.5	8.9	6.4	8.7	22.0	22.7	13.8	9.5	22.1	7.4	6.3	9.0	6.4	5.7	3.9	4.8	5.1	3.4	3.9	4.1	22.7	3.4	9.8
2	4.0	3.8	3.7	3.6	3.3	3.7	3.8	3.8	3.6	3.1	3.2	3.9	3.5	3.9	6.2	6.8	5.7	5.8	4.7	3.1	3.1	3.5	3.2	3.9	6.8	3.1	4.0
3	2.8	4.2	4.1	4.8	3.7	3.1	4.7	3.4	3.9	5.0	5.5	5.8	5.8	9.2	8.6	7.9	7.5	6.3	9.5	18.1	40.9	27.2	27.5	60.6	60.6	2.8	11.7
4	48.4	40.4	26.4	17.1	9.6	8.2	7.4	12.2	5.1	7.6	4.5	4.9	4.6	4.3	4.8	5.3	5.6	5.6	5.8	4.8	6.9	5.7	5.8	6.2	48.4	4.3	10.7
5	8.4	8.7	5.2	7.3	5.6	5.5	6.6	7.0	5.3	5.8	5.3	8.1	91.0	14.9	4.1	3.4	4.3	6.5	4.1	5.5	7.9	6.8	5.7	3.4	91.0	3.4	9.9
6	5.6	4.4	4.4	3.1	3.1	3.8	4.1	4.0	4.1	3.5	3.6	4.4	4.8	8.1	4.8	4.5	4.2	4.6	3.6	6.1	6.3	5.1	4.4	4.4	8.1	3.1	4.5
7	4.2	4.0	4.1	4.3	5.4	5.5	4.1	4.3	4.0	4.0	4.1	3.7	4.4	4.7	4.1	4.7	4.7	5.4	3.6	4.0	4.3	3.8	5.0	4.8	5.5	3.6	4.4
8	5.3	6.5	6.0	6.0	4.3	3.5	7.8	7.4	7.5	3.2	4.1	7.3	4.5	4.6	5.4	5.9	4.7	4.3	3.3	3.8	3.6	3.5	5.5	3.2	7.8	3.2	5.0
9	5.2	6.7	4.2	10.4	15.3	45.4	69.1	21.2	42.7	61.0	70.5	39.6	64.2	16.4	10.4	11.8	7.9	5.5	5.0	6.6	7.6	10.9	2.9	4.3	70.5	2.9	22.7
10	3.0	3.2	3.5	3.9	4.1	4.9	4.2	5.6	4.1	3.5	3.9	5.6	6.8	7.2	6.4	5.7	5.4	4.9	6.7	5.6	9.2	8.9	13.5	8.1	13.5	3.0	5.7
11	7.8	5.6	4.8	7.2	5.7	20.3	8.8	50.0	65.0	14.8	7.5	7.6	8.1	5.9	5.3	5.1	5.1	5.7	4.4	6.3	7.0	4.2	4.0	4.3	65.0	4.0	11.3
12	4.1	4.4	4.0	6.6	6.2	7.0	4.4	11.7	49.3	47.7	49.5	61.5	24.2	8.6	12.0	13.2	13.9	21.0	12.6	9.5	4.4	11.5	4.7	3.2	61.5	3.2	16.5
13	4.3	5.8	2.5	3.5	5.3	9.4	8.5	4.6	3.8	3.9	7.7	5.0	6.6	6.7	8.2	6.3	6.1	5.6	3.5	2.9	4.2	4.5	3.3	3.6	9.4	2.5	5.2
14	3.4	4.4	4.1	3.1	3.0	3.2	4.3	3.2	3.8	7.7	6.5	7.3	6.0	10.3	10.3	6.6	5.1	6.9	7.6	8.3	6.7	3.6	10.3	9.3	10.3	3.0	6.0
15	12.7	8.1	12.3	10.1	10.1	38.5	71.6	22.5	5.6	13.9	42.4	36.0	24.0	8.4	16.4	27.3	32.5	14.9	13.0	15.9	16.3	5.0	14.4	10.9	71.6	5.0	20.1
16	7.9	4.7	7.6	7.8	5.2	3.8	4.1	3.7	4.3	3.2	4.5	4.9	8.0	3.3	5.2	5.9	3.5	3.7	7.0	4.3	4.0	4.4	3.1	3.8	8.0	3.1	4.9
17	3.9	4.9	4.8	4.5	2.2	2.5	2.2	2.5	2.6	2.1	4.0	4.8	3.5	3.6	4.3	4.8	8.0	4.9	3.3	2.6	3.2	2.9	2.5	2.3	8.0	2.1	3.6
18	3.4	4.1	4.5	3.1	3.6	4.1	6.1	6.5	5.7	4.0	6.7	4.8	5.7	8.8	4.8	10.5	6.9	12.9	3.6	2.7	3.0	5.7	3.6	4.0	12.9	2.7	5.4
19	5.0	6.4	10.4	7.0	6.4	13.4	10.9	12.5	26.7	19.4	22.7	13.6	69.3	66.0	27.8	13.9	12.3	12.2	15.2	9.1	14.8	13.5	9.2	13.5	69.3	5.0	18.0
20	17.6	10.3	10.3	8.2	11.5	6.9	6.6	12.5	9.0	8.6	12.5	15.3	7.3	6.4	7.4	5.7	6.8	8.0	7.8	6.4	8.3	7.5	7.2	6.1	17.6	5.7	8.9
21	5.4	6.5	10.8	8.1	5.4	6.3	4.4	7.5	8.4	29.4	9.4	15.1	16.5	27.6	5.0	12.6	25.5	82.1	39.0	23.3	5.3	4.9	3.9	3.8	82.1	3.8	15.3
22	4.7	4.0	6.3	4.9	3.7	6.8	4.4	5.9	6.3	87.1	54.8	42.3	65.5	8.1	7.4	8.9	6.5	17.4	67.2	31.3	26.7	42.5	18.7	26.2	87.1	3.7	23.2
23	6.9	12.7	33.5	17.9	12.8	8.1	36.2	9.2	9.1	14.9	44.7	42.9	30.1	12.6	17.5	8.4	20.4	23.0	7.1	6.1	6.6	4.7	6.5	22.8	44.7	4.7	17.3
24	26.7	6.4	45.7	13.3	6.9	11.2	7.7	8.6	15.1	10.0	15.7	3.8	10.5	7.2	7.6	7.0	7.9	5.0	19.7	6.4	7.8	5.3	8.2	6.8	45.7	3.8	11.3
25	9.2	5.3	4.7	6.0	5.4	4.6	4.5	4.5	4.8	4.6	4.2	4.3	4.1	4.2	4.4	4.4	4.7	4.7	4.7	4.6	9.1	5.9	9.8	5.1	9.8	4.1	5.3
26	7.3	8.6	9.6	7.4	9.9	6.4	9.4	13.1	8.7	10.4	8.3	7.7	9.6	6.3	6.2	10.0	7.9	11.9	9.0	6.7	4.3	5.7	3.8	5.7	13.1	3.8	8.1
27	4.6	6.0	4.4	5.3	6.9	9.0	6.4	9.7	9.2	12.9	10.1	14.6	19.5	17.2	7.4	5.7	6.5	4.0	3.9	6.0	11.5	23.6	14.3	11.7	23.6	3.9	9.6
28	11.1	7.4	10.9	12.5	30.4	40.5	9.9	9.1	9.1	8.6	12.5	6.9	10.4	10.6	11.6	9.0	7.1	7.2	7.2	5.0	7.2	4.0	4.5	4.3	40.5	4.0	10.7
29	4.4	4.7	5.0	4.8	4.5	4.5	4.6	4.3	4.5	4.3	4.2	4.2	4.6	4.9	5.4	5.1	5.4	4.8	10.6	10.2	4.7	4.4	4.6	5.3	10.6	4.2	5.2
30	8.1	9.9	13.4	5.5	6.5	5.3	13.9	19.0	7.5	3.0	3.2	4.0	7.3	42.7	34.9	59.2	13.3	5.8	9.2	16.4	24.6	21.2	20.8	19.2	59.2	3.0	15.6
31	27.6	13.6	15.2	15.7	6.2	8.1	7.8	5.7	5.2	4.7	5.3	5.4	5.9	8.4	9.5	12.7	11.7	8.8	8.2	4.9	9.1	5.4	9.2	10.7	27.6	4.7	9.4
Max.	48.4	40.4	45.7	17.9	30.4	45.4	71.6	50.0	65.0	87.1	70.5	61.5	91.0	66.0	34.9	59.2	32.5	82.1	67.2	31.3	40.9	42.5	27.5	60.6	91.0		
Min.	2.8	3.2	2.5	3.1	2.2	2.5	2.2	2.5	2.6	2.1	3.2	3.7	3.5	3.3	4.1	3.4	3.5	3.7	3.3	2.6	3.0	2.9	2.5	2.3		2.1	
Avg.	9.3	7.5	9.5	7.6	7.4	10.1	11.4	9.8	11.8	14.0	14.7	13.1	18.0	11.6	9.0	9.9	8.8	10.5	10.1	8.1	9.2	8.7	7.9	9.2		10.3	

Total Hours In Month 744 Hours Data Available 744 Data Recovery 100.0%

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.6	10.2	15.4	17.4	16.3	21.8	13.3	13.3	53.1	11.9	9.5	13.2	8.9	8.3	24.6	27.8	52.2	13.3	6.0	3.7	3.3	3.1	2.9	2.9	53.1	2.9	15.0
2	3.4	2.4	6.6	24.1	16.0	8.1	11.7	9.9	9.1	8.6	4.9	3.7	4.3	9.3	3.6	4.7	6.5	2.6	2.4	4.3	2.3	2.4	2.8	3.5	24.1	2.3	6.6
3	2.3	2.9	4.5	5.7	4.0	4.3	3.3	11.2	14.2	16.7	72.4	12.2	28.2	23.7	8.8	10.2	15.0	6.2	9.8	10.2	10.4	5.9	8.0	6.9	72.4	2.3	12.4
4	6.3	4.1	3.9	4.0	4.1	4.1	3.9	4.0	3.8	4.0	4.2	4.0	4.8	5.0	4.1	4.3	4.3	4.6	4.9	7.4	6.1	5.3	5.0	4.4	7.4	3.8	4.6
5	4.0	3.8	3.9	3.6	3.5	4.4	5.3	5.1	4.0	3.9	5.8	5.6	4.4	5.3	4.0	4.8	5.5	4.3	5.3	4.8	5.3	6.9	5.3	6.2	6.9	3.5	4.8
6	5.2	3.8	3.9	3.6	3.8	5.2	5.5	4.3	4.5	4.0	3.9	3.9	4.0	3.8	4.0	4.5	4.8	4.1	4.4	4.8	4.3	4.2	10.2	4.8	10.2	3.6	4.6
7	6.9	16.5	5.9	5.4	4.3	4.5	4.0	3.9	5.4	5.4	5.6	5.6	4.5	7.0	9.3	8.8	5.4	6.2	12.0	5.0	8.6	6.0	9.0	46.2	46.2	3.9	8.4
8	17.7	11.2	10.0	5.2	6.0	4.8	4.9	4.3	4.0	3.9	4.1	4.1	6.0	5.1	5.3	4.7	4.8	5.3	4.2	4.6	5.2	4.5	5.8	6.3	17.7	3.9	5.9
9	4.6	5.8	5.0	5.8	5.2	6.6	5.9	4.7	6.1	6.3	5.9	4.0	6.3	4.1	4.1	3.9	4.6	3.8	5.5	7.3	5.7	26.4	20.7	58.2	58.2	3.8	9.0
10	17.1	30.4	7.0	5.6	5.0	3.2	5.2	3.7	4.6	5.4	3.2	3.4	6.5	2.7	6.7	2.4	2.6	10.1	5.9	9.5	5.8	6.6	5.2	6.1	30.4	2.4	6.8
11	6.9	4.5	8.6	6.9	5.3	10.7	7.1	5.1	5.1	6.8	6.0	5.9	5.0	5.5	11.6	6.1	4.4	7.2	5.9	7.8	11.0	22.1	13.0	10.1	22.1	4.4	7.9
12	16.9	9.6	28.7	57.5	61.9	44.8	26.7	23.3	14.9	32.7	12.1	29.6	12.8	10.2	17.6	7.2	5.0	6.1	7.0	10.8	9.5	9.5	5.0	4.9	61.9	4.9	19.3
13	4.8	4.4	3.9	4.2	7.0	5.0	4.9	4.0	4.3	4.1	4.9	4.7	7.2	25.9	31.3	39.8	54.6	7.5	7.7	6.4	4.3	6.2	6.1	8.3	54.6	3.9	10.9
14	5.1	6.1	5.2	5.9	6.7	5.3	4.6	7.9	17.4	11.7	12.9	9.8	8.0	10.2	7.5	18.6	19.1	5.6	5.6	32.4	36.6	55.3	23.5	31.4	55.3	4.6	14.7
15	8.7	4.7	11.3	8.6	5.4	3.6	10.5	5.7	8.4	4.5	5.3	5.0	5.2	5.9	3.7	4.8	6.6	8.3	3.2	4.7	4.7	4.6	4.5	6.0	11.3	3.2	6.0
16	3.1	2.8	2.9	3.2	3.1	3.8	3.3	3.1	3.1	3.1	3.4	3.3	3.5	2.6	2.6	2.9	4.4	3.8	3.1	2.8	2.8	2.7	2.8	3.5	4.4	2.6	3.2
17	4.0	3.9	6.2	4.4	2.9	3.6	3.8	3.3	4.2	3.6	3.3	3.8	4.3	2.8	3.2	3.6	4.7	3.6	9.8	6.9	3.8	3.7	2.3	4.2	9.8	2.3	4.2
18	6.3	4.0	4.5	4.4	6.5	6.4	8.0	7.1	4.0	4.1	5.1	4.4	4.3	3.0	3.3	7.1	5.0	7.1	3.0	6.1	14.9	90.9	7.8	12.0	90.9	3.0	9.6
19	7.4	12.0	9.9	44.3	9.9	20.5	8.9	23.9	6.4	13.7	5.9	10.0	4.2	6.5	5.4	8.7	5.9	8.6	11.5	7.8	6.7	12.5	6.5	5.3	44.3	4.2	10.9
20	4.7	4.1	4.2	4.0	4.2	4.4	3.7	3.6	3.7	3.4	3.6	3.6	3.5	3.8	3.4	4.0	4.2	4.2	6.4	8.4	10.9	17.1	12.3	7.6	17.1	3.4	5.5
21	10.3	4.9	8.1	6.5	4.3	4.2	9.3	4.1	5.1	5.3	4.5	4.6	4.5	4.1	4.2	6.0	4.8	5.1	4.0	4.2	4.0	4.8	4.1	5.7	10.3	4.0	5.3
22	5.6	11.0	4.7	6.2	9.9	19.3	16.6	11.1	8.6	5.0	3.8	4.0	4.1	4.3	4.7	5.5	6.5	6.7	5.8	5.2	4.1	5.0	12.0	7.1	19.3	3.8	7.4
23	6.5	4.1	5.3	7.3	9.1	3.9	5.2	7.9	13.4	8.7	9.5	11.7	9.4	9.6	0.4	0.4	0.4	0.1	0.2	2.2	7.7	5.6	2.5	5.6	13.4	0.1	5.7
24	7.3	8.9	16.5	4.8	19.9	12.9	17.2	13.1	6.2	5.8	3.7	5.4	11.7	4.2	4.0	4.3	4.3	4.3	4.4	3.8	5.1	4.7	4.3	4.0	19.9	3.7	7.5
25	3.9	3.9	4.7	3.9	4.2	3.8	5.2	6.9	7.8	7.4	14.3	9.0	5.4	7.7	7.6	8.3	6.0	6.3	30.7	31.4	18.4	38.4	14.0	6.4	38.4	3.8	10.6
26	5.5	4.4	11.6	10.9	13.6	36.4	30.5	19.0	11.1	7.9	6.0	5.2	7.1	9.2	10.7	6.8	11.0	5.0	5.1	5.9	5.0	4.8	5.7	5.3	36.4	4.4	10.2
27	4.1	6.3	4.2	4.6	4.1	3.7	3.8	3.7	3.8	4.1	4.3	4.4	4.8	4.4	4.2	4.6	5.3	4.4	4.1	4.0	4.0	3.7	4.1	5.2	6.3	3.7	4.3
28	4.5	4.1	6.3	5.6	7.9	8.5	12.5	7.1	9.3	6.7	10.0	4.7	3.8	3.8	7.1	5.0	4.8	4.6	4.5	4.9	4.2	5.0	5.0	4.6	12.5	3.8	6.0
29	5.5	5.2	8.0	11.9	11.5	5.6	6.5	4.5	4.8	4.2	5.0	4.4	4.0	4.8	5.0	4.7	4.6	4.3	4.2	4.6	5.3	4.3	4.6	4.6	11.9	4.0	5.5
30	4.3	4.6	3.9	4.3	4.4	5.1	4.6	5.0	4.1	4.4	4.4	4.7	4.3	4.1	4.2	4.1	4.7	4.4	5.2	5.4	3.8	4.1	3.9	3.9	5.4	3.8	4.4
Max.	17.7	30.4	28.7	57.5	61.9	44.8	30.5	23.9	53.1	32.7	72.4	29.6	28.2	25.9	31.3	39.8	54.6	13.3	30.7	32.4	36.6	90.9	23.5	58.2	90.9		
Min.	2.3	2.4	2.9	3.2	2.9	3.2	3.3	3.1	3.1	3.1	3.2	3.3	3.5	2.6	0.4	0.4	0.4	0.1	0.2	2.2	2.3	2.4	2.3	2.9		0.1	
Avg.	6.7	6.8	7.5	9.7	9.0	9.3	8.5	7.8	8.5	7.2	8.2	6.6	6.5	6.9	7.2	7.6	9.1	5.6	6.4	7.6	7.5	12.5	7.3	9.7			7.9
Total Hours in Month	720																								Data Recovery 100.0%		
Hours Data Available	720																										

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (Climatronics)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.2	5.4	5.4	5.9	8.4	8.0	8.6	13.4	6.9	8.7	12.2	13.3	10.3	6.6	16.7	10.6	6.5	8.2	28.4	57.6	11.3	11.6	4.7	3.6	57.6	3.6	11.6
2	5.3	8.3	10.6	8.2	15.7	12.9	7.1	4.5	7.2	25.9	73.9	74.7	85.9	68.4	16.6	9.1	12.3	34.4	95.8	75.0	24.4	10.5	5.6	15.4	95.8	4.5	29.5
3	20.5	6.4	6.1	4.3	4.0	3.9	4.1	4.3	4.2	5.1	4.8	4.3	5.1	5.9	14.3	11.4	23.4	51.5	26.2	19.3	16.5	26.7	10.2	14.1	51.5	3.9	12.4
4	21.7	13.8	11.3	9.0	10.7	10.8	31.4	10.1	5.2	7.1	7.5	10.1	9.5	5.9	7.1	5.2	5.4	4.9	5.0	4.4	5.1	5.9	7.1	6.8	31.4	4.4	9.2
5	6.1	7.7	8.3	10.6	11.5	6.8	5.5	4.7	5.7	8.9	5.8	4.2	4.0	4.5	4.4	5.1	4.9	4.5	4.3	4.2	5.0	4.2	4.3	4.0	11.5	4.0	5.8
6	4.2	4.5	4.2	4.2	4.1	4.2	4.0	4.1	4.0	4.0	3.9	3.7	3.7	3.9	4.2	4.6	9.1	19.8	27.0	7.6	4.2	10.4	13.7	16.5	27.0	3.7	7.2
7	11.9	17.6	12.3	6.0	12.3	6.9	8.2	13.0	19.7	30.2	12.1	3.8	6.2	3.7	4.0	3.6	3.6	3.6	3.8	4.3	4.5	4.2	3.8	4.3	30.2	3.6	8.5
8	4.6	4.7	14.2	4.4	6.8	6.8	6.2	7.0	8.9	5.3	6.4	5.3	3.8	7.4	6.6	11.5	48.1	23.5	5.6	16.5	3.8	4.9	3.5	4.2	48.1	3.5	9.2
9	32.9	48.7	41.1	14.6	17.9	5.5	9.6	6.0	5.3	4.0	6.3	10.8	5.2	8.7	4.4	5.4	4.9	5.3	4.6	4.6	5.2	4.3	5.4	5.6	48.7	4.0	11.1
10	7.5	5.7	4.5	9.2	7.7	13.9	9.5	11.3	6.3	26.5	5.9	16.9	7.3	9.8	2.7	3.9	6.4	5.6	6.0	5.0	4.7	2.7	3.6	2.6	26.5	2.6	7.7
11	3.0	2.5	2.6	2.6	5.6	2.7	2.8	7.3	6.2	14.2															14.2	2.5	5.0
12																											
13	6.3	3.6	6.3	6.5	6.3	5.6	9.1	4.2	3.6			4.6	3.4	3.2	2.8	2.8	2.8	3.0	3.1	3.0	6.2	6.1	4.0	5.3	6.7	4.0	5.4
14	5.6	6.4	3.2	3.0	2.7	2.9	4.3	4.8	2.8	4.4	5.8	4.6	4.2	4.8	3.2	2.8	2.8	2.8	3.0	3.1	3.0	3.6	4.3	3.2	7.5	3.6	5.7
15	3.4	3.3	3.1	3.2	3.2	2.7	3.3	3.3	4.2	3.8	3.6	4.2	4.2	4.8	3.2	3.6	2.9	3.5	3.3	3.0	2.8	2.6	3.3	2.5	4.8	2.5	3.4
16	4.2	4.1	2.3	2.5	2.9	3.5	3.5	3.1	2.9	4.0	3.6	4.1	3.1	3.6	4.7	3.7	2.9	2.6	3.2	5.5	4.2	7.4	6.1	7.9	7.9	2.3	4.0
17	6.1	5.6	9.5	4.5	3.1	5.2	9.0	4.5	4.1	4.0	3.1	10.4	7.7	10.4	6.6	9.0	4.9	4.9	4.3	4.5	3.4	6.8	5.5	5.6	10.4	3.1	5.9
18	4.2	3.4	5.7	6.4	4.3	4.2	3.6	4.8	3.6	4.3	3.8	5.2	4.3	5.9	4.3	3.8	4.7	4.9	5.5	3.6	8.1	8.1	7.9	9.1	9.1	3.4	5.2
19	10.4	7.5	8.3	46.8	9.5	7.9	6.1	8.1	6.2	5.0	3.2	3.3	6.0	7.2	4.2	5.2	6.3	4.5	4.0	4.5	6.8	7.6	5.9	6.3	46.8	3.2	7.9
20	7.8	3.5	3.4	3.4	3.5	3.3	8.9	6.0	5.1	4.0	8.9	15.0	5.1	6.3	11.1	7.4	5.7	5.4	3.8	3.8	4.5	9.5	20.5	5.4	20.5	3.3	6.7
21	4.6	5.4	3.6	3.4	3.4	3.5	3.9	3.5	4.2	3.9	4.3	3.3	3.5	4.5	3.6	3.5	4.0	3.6	3.5	3.8	4.2	27.4	5.4	5.0	27.4	3.3	5.0
22	5.2	4.7	6.7	6.8	16.4	25.6	23.9	7.4	8.1	6.8	9.0	12.3	9.1	4.1	3.1	11.6	6.2	14.0	27.0	64.4	25.0	77.8	42.7	58.2	77.8	3.1	19.8
23	26.4	31.7	12.0	6.3	8.8	7.5	5.3	7.0	3.8	5.2	4.7	3.8	3.5	2.9	2.9	2.7	3.4	5.4	4.8	3.1	3.0	3.6	3.7	2.9	31.7	2.7	6.8
24	3.2	3.6	4.4	2.5	2.6	3.6	4.6	3.5	5.3	3.8	5.6	3.0	2.6	2.1	2.8	2.4	2.7	2.5	3.4	3.9	4.4	5.1	4.2	4.8	5.6	2.1	3.6
25	6.4	10.9	5.9	10.6	21.0	25.9	71.9	20.3	10.1	11.3	8.8	16.7	8.0	9.3	13.7	11.1	11.8	3.9	3.7	3.7	3.9	3.6	3.9	3.2	71.9	3.2	12.5
26	3.3	3.1	3.3	3.6	3.2	3.0	3.1	3.3	3.4	3.7	4.7	3.5	3.6	4.1	4.3	4.9	5.5	6.3	6.4	14.4	7.9	18.8	8.2	11.1	18.8	3.0	5.7
27	4.1	10.5	7.0	5.8	10.5	18.1	4.6	4.6	4.8	3.5	6.6	5.3	6.1	3.1	5.1	7.4	10.9	3.4	8.1	4.8	4.2	4.1	3.8	3.9	18.1	3.1	6.3
28	2.8	2.6	3.2	2.4	2.2	2.0	1.7	2.0	2.8	2.8	6.3	4.3	8.7	4.3	2.8	10.1	9.3	3.0	2.5	2.2	2.9	2.5	2.2	3.0	10.1	1.7	3.7
29	2.4	6.3	3.5	2.9	7.6	7.2	6.6	9.5	5.0	5.1	14.3	5.9	7.3	13.4	18.3	15.0	28.9	11.2	13.0	12.3	12.9	10.5	4.2	4.2	28.9	2.4	9.5
30	6.4	4.1	2.4	3.7	3.5	3.3	3.9	3.0	4.3	3.0	5.0	3.4	6.0	3.4	6.3	4.3	3.8	3.5	3.7	4.3	5.0	6.0	5.1	6.4	6.4	2.4	4.3
31																											
Max.	32.9	48.7	41.1	46.8	21.0	25.9	71.9	20.3	19.7	30.2	73.9	74.7	85.9	68.4	18.3	15.0	48.1	51.5	95.8	75.0	25.0	77.8	42.7	58.2	95.8		
Min.	2.4	2.5	2.3	2.4	2.2	2.0	1.7	2.0	2.8	2.8	3.1	3.0	2.6	2.1	2.7	2.4	2.7	2.5	2.5	2.2	2.8	2.5	2.2	2.5		1.7	
Avg.	8.2	8.5	7.4	7.0	7.6	7.5	9.5	6.5	5.6	7.8	8.9	9.5	8.6	8.0	6.7	6.6	8.9	9.2	11.2	12.5	7.1	10.6	7.2	8.2		8.3	

Total Hours in Month 744 Hours Data Available 673 Data Recovery 90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.4	3.1	3.8	3.1	2.8	3.7	3.6	3.4	3.5	3.7	2.9	2.8	3.9	2.2	3.1	3.2	2.9	5.4	3.0	3.4	4.2	2.6	2.2	3.7	5.4	2.2	3.4
2	2.7	5.1	4.8	2.8	4.3	2.6	5.5	3.4	2.2	3.0	4.6	3.8	2.5	2.9	2.2	2.9	2.5	2.7	2.7	3.0	3.5	1.7	3.0	3.1	5.5	1.7	3.2
3	2.8	2.3	3.1	4.6	2.7	2.4	3.0	2.1	2.5	1.4	1.4	2.3	2.3	2.0	2.6	4.3	7.1	3.1	2.2	2.6	2.5	3.9	4.5	3.7	7.1	1.4	3.0
4	1.9	3.4	3.0	4.7	5.8	3.9	4.2	3.3	3.7	3.9	4.5	3.9	5.7	13.8	6.3	6.6	9.9	30.6	18.9	28.5	7.7	10.3	14.0	8.7	30.6	1.9	8.6
5	27.2	48.4	3.2	4.1	3.1	3.7	2.3	3.4	2.4	4.5	5.4	5.3	3.4	3.3	2.5	3.4	2.3	2.6	4.0	3.0	5.5	2.9	3.7	3.9	48.4	2.3	6.4
6	3.4	8.2	2.6	3.6	6.5	4.0	2.8	3.1	3.7	4.5	3.8	3.5	5.0	3.8	3.1	2.7	3.0	4.4	3.5	2.4	4.5	2.8	3.1	2.7	8.2	2.4	3.8
7	3.0	3.5	3.8	4.8	4.6	3.1	2.8	3.0	2.8	2.0	3.1	3.2	4.0	3.7	3.5	2.8	2.5	2.1	2.8	3.6	3.2	4.2	3.2	3.3	4.8	2.0	3.3
8	2.0	2.4	2.5	6.9	9.1	5.6	2.9	2.9	2.1	2.8	2.0	3.1	2.9	2.8	4.4	3.1	2.9	3.6	3.2	2.2	2.6	3.2	3.3	3.5	9.1	2.0	3.4
9	3.3	2.5	2.6	3.3	2.7	2.9	4.5	3.4	2.3	2.6	3.4	4.7	18.1	11.1	5.1	11.4	5.0	4.9	4.1	6.2	4.1	4.2	4.3	4.3	18.1	2.3	5.0
10	5.8	6.2	5.6	8.8	6.3	3.4	5.6	5.5	6.3	7.9	10.0	5.2	3.7	3.8	4.0	4.0	3.8	3.7	3.3	3.5	3.6	3.6	3.7	3.8	10.0	3.3	5.0
11	3.7	3.7	3.8	3.8	3.5	3.2	3.2	3.2	3.1	3.3	3.2	3.0	2.9	3.1	3.1	3.1	2.9	2.9	3.0	3.0	3.0	3.3	3.3	3.1	3.8	2.9	3.2
12	3.3	3.2	3.2	2.9	3.2	3.1	3.4	3.4	3.4	3.3	3.5	3.4	2.9	3.0	3.0	3.1	3.1	3.1	3.3	3.2	3.4	3.6	3.6	8.7	8.7	2.9	3.5
13	5.9	4.1	3.7	3.7	4.0	4.2	4.4	5.1	5.6	4.3	4.6	8.5	5.9	7.7	18.7	13.4	0.2	0.1	11.3	5.2	7.7	8.6	7.3	3.8	18.7	0.1	6.2
14	3.1	3.1	2.7	3.3	3.5	4.7	5.2	3.8	5.2	3.5	4.7	6.5	3.9	3.1	2.4	2.6	1.9	3.2	1.5	1.9	1.7	2.5	3.5	2.4	6.5	1.5	3.3
15	1.7	2.9	2.3	2.3	1.9	2.3	2.9	2.4	4.1	2.8	2.3	2.3	4.1	2.2	2.6	2.0	1.4	2.8	3.0	4.9	6.3	5.0	12.3	5.2	12.3	1.4	3.4
16	5.7	10.7	43.6	13.6	30.4	14.6	7.5	3.2	10.7	9.4	4.0	3.1	3.4	3.1	3.1	2.9	3.1	3.1	3.0	3.0	3.2	3.1	2.9	3.0	43.6	2.9	8.1
17	3.1	3.3	3.5	3.9	3.5	3.6	5.3	6.0	3.9	4.6	5.8	7.2	3.4								4.6	3.8	3.9	3.5	7.2	3.1	4.3
18	2.9	3.5	3.4	6.7	3.8	2.5	4.0	3.5	3.2	3.8	32.0	9.9	6.4	7.2	8.1	13.8	3.7	2.0	3.1	6.8	7.7	2.5	3.7	3.4	32.0	2.0	6.1
19	2.3	2.1	3.8	4.4	17.9	13.7	5.7	16.6	9.9	13.7	19.6	9.7	9.8	7.8	4.8	6.3	6.8	6.3	4.9	11.6	12.4	12.6	5.6	9.4	19.6	2.1	9.1
20	6.8	5.8	3.8	3.7	3.4	3.4	3.1	2.8	3.0	3.0	4.1	5.4	16.7	30.2	10.9	9.5	19.3	15.0	8.0	3.8	3.2	5.0	4.3	2.8	30.2	2.8	7.4
21	3.1	3.3	3.4	3.8	3.3	2.6	6.1	7.2	5.2	6.3	5.4	8.3	5.1	7.3	7.9	7.2	8.9	13.2	11.7	8.1	6.8	30.9	43.6	4.3	43.6	2.6	8.9
22	5.8	4.1	6.6	4.2	18.3	21.6	9.0	5.6	7.3	5.0	5.3	5.7	6.1	18.4	5.0	2.0	2.4	2.2	4.7	2.6	5.6	3.4	1.9	4.8	21.6	1.9	6.6
23	3.5	5.4	15.2	4.9	4.5	4.6	3.1	3.5	3.3	4.3	3.3	3.3	7.0	3.5	3.3	2.6	2.4	2.5	3.0	6.8	4.8	5.0	3.8	3.2	15.2	2.4	4.4
24	3.1	2.9	2.7	3.2	2.1	2.5	3.1	6.0	7.5	2.6	2.6	5.9	4.9	4.3	6.2	3.7	3.8	2.5	3.0	3.8	8.7	11.4	6.3	7.6	11.4	2.1	4.6
25	8.4	4.5	43.6	6.8	10.1	4.6	7.0	6.8	3.3	3.0	4.2	4.3	3.3	3.3	3.2	3.8	4.5	4.9	3.7	3.3	3.0	2.8	2.9	3.1	43.6	2.8	6.2
26	3.0	3.0	3.1	3.2	3.3	3.6	3.3	3.5	3.8	3.7	3.2	3.5	3.6	4.0	3.7	4.1	3.7	3.6	3.8	3.7	3.6	3.6	5.4	5.6	5.6	3.0	3.7
27	3.1	3.4	3.2	3.3	3.0	3.0	3.2	3.4	3.4	3.6	3.6	3.2	3.4	3.0	2.9	3.1	3.2	2.9	3.3	3.4	3.5	3.4	3.3	3.0	3.6	2.9	3.2
28	3.1	3.4	2.9	3.0	2.8	3.2	2.8	2.7	3.0	3.1	3.5	3.4	3.7	4.5	4.1	3.7	3.4	4.2	4.1	4.8	4.7	4.6	3.0	3.2	4.8	2.7	3.5
29	2.9	3.7	3.7	4.3	3.8	4.0	3.9	3.4	3.5	2.9	3.1	3.2	3.5	3.1	3.1	3.4	3.0	3.1	3.5	3.5	3.8	3.6	3.4	3.6	4.3	2.9	3.5
30	11.0	3.2	3.2	3.4	3.2	3.5	3.3	3.7	3.4	3.9	4.9	5.9	6.3	7.2											11.0	3.2	4.7

Max.	27.2	48.4	43.6	13.6	30.4	21.6	9.0	16.6	10.7	13.7	32.0	9.9	18.1	30.2	18.7	13.8	19.3	30.6	18.9	28.5	12.4	30.9	43.6	9.4	48.4		
Min.	1.7	2.1	2.3	2.3	1.9	2.3	2.3	2.1	2.1	1.4	1.4	2.3	2.3	2.0	2.2	2.0	0.2	0.1	1.5	1.9	1.7	1.7	1.9	2.4		0.1	
Avg.	4.7	5.5	6.5	4.5	5.9	4.8	4.2	4.3	4.2	4.2	5.5	4.8	5.3	6.0	4.7	4.8	4.3	5.0	4.6	5.1	4.8	5.4	5.8	4.3		5.0	

Total Hours in Month 744 Hours Data Available 703 Data Recovery 94.5%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1																											
2																											
3																											
4																											
5																											
6																											
7	6.6	6.4	3.9	3.9	7.9	11.3	41.8	3.9	8.5	13.0	30.4	55.4	11.6	8.5	14.8	9.5	7.6	23.1	4.8	6.3	13.5	10.5	6.6	4.1	13.5	4.1	7.6
8	7.2	7.4	7.3	8.7	5.8	3.7	2.9	3.7	3.0	3.0	3.1	4.2	4.1	4.7	4.8	5.4	4.4	4.1	4.7	5.0	4.1	3.6	7.9	4.8	55.4	3.9	13.9
9	6.7	9.0	6.2	7.4	5.5	6.8	3.7	6.3	4.0	5.0	7.0	6.2	7.1	5.7	3.5	5.6	5.6	8.0	9.5	11.9	17.5	28.1	29.2	9.7	8.7	2.9	4.9
10	14.0	15.8	14.4	27.6	20.2	19.3	5.8	5.0	4.5	4.8	7.4	5.3	5.4	6.0	6.0	7.6	5.6	6.6	5.1	7.1	6.0	4.4	4.8	3.8	29.2	3.5	9.0
11	17.6	37.8	6.0	7.6	5.2	6.5	8.8	9.4	5.7	6.4	9.1	8.2	11.2	4.4	4.1	3.8	3.2	3.2	3.4	3.4	3.5	3.7	3.5	3.5	27.6	3.8	8.9
12	3.6	3.5	3.3	3.4	3.2	3.3	3.4	3.3	3.0	3.5	3.7	3.8	3.7	3.5	4.0	5.2	4.2	3.6	3.3	5.3	6.1	5.9	11.5	11.1	37.8	3.2	7.5
13	10.6	5.5	5.0	4.2	6.5	6.7	5.2	4.6	5.6	5.6	15.4	16.3	10.9	9.5	9.4	5.7	4.9	3.8	3.9	4.0	3.6	3.8	4.3	5.7	11.5	3.0	4.5
14	3.7	3.9	4.2	4.0	4.6	4.4	4.0	3.4	4.0	4.8	4.8	4.0	3.7	4.3	4.2	4.0	3.4	4.5	5.9	7.1	4.4	7.7	24.9	14.6	16.3	3.6	6.7
15	9.4	7.7	38.1	56.8	5.1	4.9	3.3	5.0	5.4	5.4	4.3	5.4	5.9	7.4	3.2	3.5	2.3	2.4	3.0	2.3	2.9	3.7	5.8	23.5	24.9	3.4	5.8
16	60.4	32.6	67.4	28.6	31.4	9.0	10.1	10.5	6.5	6.7	8.2	4.1	5.5	5.2	5.0	9.6	10.3	32.0	11.2	46.2	22.1	7.8	8.4	39.2	56.8	2.3	9.0
17	34.5	40.1	42.8	17.0	8.0	9.5	19.1	7.1	11.7	15.8	27.3	19.5	12.2	8.7	9.6	5.4	10.0	4.6	3.9	4.6	7.1	7.4	8.6	4.2	67.4	4.1	19.9
18	6.1	7.6	6.0	5.5	6.4	13.0	11.7	9.0	7.2	4.9	6.8	11.7	8.8	28.4	26.9	42.8	41.8	49.9	47.5	27.0	7.3	6.3	3.0	2.6	42.8	3.9	14.1
19	2.7	2.5	3.8	4.1	4.8	4.2	3.7	3.9	3.9	3.2	3.5	3.0	2.5	3.0	3.3	3.4	2.5	2.5	2.6	3.5	3.7	5.1	3.5	3.5	49.9	2.6	16.2
20	2.7	4.7	7.5	4.1	5.8	4.2	4.5	3.9	3.7	3.5	3.3	3.0	3.4	3.7	4.2	3.4	3.7	3.0	3.7	4.3	5.1	3.8	3.3	4.1	5.1	2.5	3.4
21	4.4	3.7	3.9	2.9	3.0	2.4	2.6	3.0	4.3	3.6	4.8	3.0	3.3	3.8	3.0	3.1	3.0	3.6	2.8	4.9	4.6	4.6	4.6	2.5	7.5	2.7	4.0
22	3.3	3.6	3.6	2.5	3.6	6.8	3.0	2.8	4.2	2.6	3.5	3.5	5.4	5.3	3.6	3.7	6.0	3.7	3.2	3.6	2.9	2.0	4.1	4.3	4.9	2.4	3.6
23	4.4	5.9	5.6	4.5	4.2	3.1	2.9	3.3	3.6	4.0	3.6	4.8	4.2	3.3	2.9	3.2	2.8	3.0	2.6	5.2	5.3	3.5	4.9	3.6	6.8	2.0	3.8
24	2.0	3.0	3.0	4.6	4.4	2.8	2.5	2.5	2.0	3.3	2.6	4.0	2.7	3.4	2.9	3.5	2.8	2.9	3.2	3.0	3.4	4.3	2.8	4.4	5.9	2.6	3.9
25	3.9	5.4	4.6	4.3	4.9	5.3	5.5	5.6	5.2	2.8	4.6	5.0	3.4	3.8	4.4	2.9	5.0	6.5	4.7	3.0	2.5	3.8	3.5	3.3	4.6	2.0	3.2
26	4.0	4.6	4.2	4.6	8.0	4.7	5.6	4.5	4.6	3.6	5.5	6.6	8.6	3.6	3.4	2.2	3.1	2.6	3.3	2.4	3.0	2.6	1.9	2.2	6.5	2.5	4.3
27	2.3	2.1	2.1	2.9	2.7	3.6	3.1	3.1	2.7	2.9	6.3	4.9	6.3	7.0	7.2	5.6	4.4	3.3	4.6	7.8	6.9	6.4	4.5	4.7	8.6	1.9	4.1
28	3.6	2.7	4.8	3.2	4.8	3.8	3.9	5.1	3.0	4.1	5.6	4.9	3.0	4.0	4.3	5.6	6.2	5.0	3.7	10.4	6.0	6.9	5.8	4.0	7.8	2.1	4.5
																									10.4	2.7	4.8
Max.	60.4	40.1	67.4	56.8	31.4	19.3	41.8	10.5	11.7	15.8	30.4	55.4	12.2	28.4	26.9	42.8	41.8	49.9	47.5	46.2	22.1	28.1	29.2	39.2	67.4		
Min.	2.0	2.1	2.1	2.5	2.7	2.4	2.5	2.5	2.0	2.6	2.6	3.0	2.5	3.0	2.9	2.2	2.3	2.4	2.6	2.3	2.5	2.0	1.9	2.2		1.9	
Avg.	9.7	9.8	11.2	9.7	7.1	6.3	7.1	4.9	4.8	5.1	7.8	8.5	6.0	6.2	6.1	6.6	6.5	8.3	6.5	8.1	6.7	6.6	7.1	7.7			7.3

Total Hours In Month 672

Hours Data Available 534

Data Recovery 79.5%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.5	5.4	4.1	3.5	4.8	3.4	4.9	3.6	4.2	4.9	4.1	5.6	3.7	4.8	4.0	4.1	4.9	4.8	2.8	4.7	3.3	3.0	3.2	4.2	6.5	2.8	4.3
2	3.3	4.2	3.4	3.0	3.4	3.5	3.2	2.7	2.6	3.6	4.3	3.6	2.7	3.7	3.3	3.0	3.7	3.9	3.4	2.6	2.9	3.1	3.3	3.1	4.3	2.6	3.3
3	3.9	3.0	2.9	4.8	4.1	4.0	3.2	3.4	3.9	3.6	7.3	9.4	5.6	4.8	4.6	5.4	3.7	6.4	6.5	4.6	4.5	11.7	8.6	4.9	11.7	2.9	5.2
4	4.9	2.6	3.5	4.8	4.0	2.5	3.8	4.0	4.5	4.8	4.8	3.7	3.4	2.7	2.8	2.8	3.0	2.7	3.0	3.3	3.4	3.9	3.5	3.1	4.9	2.5	3.6
5	3.7	3.5	3.8	3.2	3.3	3.3	2.7	2.8	2.7	2.8	3.6	4.3	4.5	3.5	3.3	3.5	3.6	3.5	3.0	3.1	2.5	2.7	3.5	3.1	4.5	2.5	3.3
6	3.1	3.6	3.7	3.1	3.0	2.7	2.6	2.7	2.8	3.3	3.3	3.0	3.1	3.5	3.2	3.3	3.1	3.7	3.1	3.3	3.5	3.7	3.4	4.5	4.5	2.6	3.3
7	4.2	3.7	3.8	2.9	2.7	4.6	4.0	3.6	4.1	3.4	4.0	4.5	3.9	3.2	3.3	3.4	4.0	3.7	3.0	3.0	2.9	2.6	2.5	2.7	4.6	2.5	3.5
8	2.9	2.7	2.5	2.7	3.1	3.0	2.8	2.8	3.3	3.4	3.5	3.2	3.0	3.8	4.2	3.8	3.1	2.9	2.8	3.0	3.0	3.0	2.9	3.4	4.2	2.5	3.1
9	3.4	4.9	5.1	3.7	3.1	3.3	3.4	4.9	5.0	4.6	5.4	4.1	4.0	3.8	4.0	4.4	3.9	3.8	3.0	3.0	3.0	2.8	2.9	3.0	5.4	2.8	3.9
10	3.2	3.9	2.7	3.6	3.0	3.1	5.3	6.4	4.3	4.9	6.6	5.2	5.5	4.8	5.7	4.2	3.7	3.4	3.0	3.3	3.7	3.2	4.4	3.4	6.6	2.7	4.2
11	4.6	5.5	4.2	4.7	4.5	4.8	2.9	3.2	4.8	3.5	2.9	3.3	4.0	3.8	3.8	3.6	3.8	3.2	3.5	3.3	3.3	3.6	4.1	4.0	5.5	2.9	3.9
12	4.2	2.9	3.2	3.2	3.9	4.8	4.7	4.1	3.2	3.0	3.2	3.5	3.5	4.0	3.6	4.3	3.9	3.2	3.4	4.5	3.1	2.7	2.4	3.2	4.8	2.4	3.6
13	3.4	3.6	2.9	3.0	2.3	2.3	3.1	2.8	2.8	2.5	3.4	2.9	3.3	3.1	3.2	4.3	4.1	4.5	3.4	3.0	3.0	3.4	4.7	6.1	6.1	2.3	3.4
14	3.5	2.9	3.1	2.8	3.9	2.9	3.1	3.1	3.3	4.0	3.1	3.4	3.0	3.5	3.4	4.2	3.9	3.1	3.6	3.0	3.5	3.5	2.8	2.9	4.2	2.8	3.3
15	2.9	3.8	3.1	2.9	2.5	2.7	2.7	3.6	2.9	3.2	5.3	3.4	4.1	5.0	5.7	4.6	5.1	3.4	3.2	3.1	3.3	3.8	4.2	4.5	5.7	2.5	3.7
16	5.7	4.3	3.5	3.9	4.0	4.0	4.3	3.5	5.3	4.7	4.2	8.9	7.3	4.7	4.0	4.3	4.2	3.8	3.4	2.6	2.7	2.3	2.8	2.8	8.9	2.3	4.2
17	2.8	3.2	2.7	2.6	6.3	5.9	5.9	4.3	4.1	5.5	5.5	3.5	4.7	4.5	6.1	7.3	7.8	8.3	3.9	2.7	2.2	2.2	2.9	5.1	8.3	2.2	4.6
18	3.1	15.0	49.6	15.0	3.3	5.1	3.8	5.6	39.7	45.4	43.6	28.4	12.5	6.4	6.6	8.4	7.9	8.9	9.3	1.9	2.2	2.2	3.4	2.8	49.6	1.9	13.8
19	2.8	3.4	2.7	2.0	2.6	2.5	2.8	2.5	2.8	3.7	2.3	3.3	8.1	10.3	9.7	13.2	10.1	9.6	6.1	5.4	6.5	8.1	8.6	26.5	26.5	2.0	6.5
20	36.0	8.4	5.5	8.0	3.7	6.6	7.0	4.9	5.8	4.3	4.0	5.3	4.4	4.3	4.6	4.2	4.0	4.0	4.5	4.3	4.6	4.6	5.0	4.5	36.0	3.7	6.4
21	3.3	5.0	13.1	5.9	5.1	6.0	3.1	3.8	3.9	4.0	10.3	5.7	6.7	4.2	3.2	6.1	3.0	2.9	3.5	6.2	4.4	4.2	4.8	6.3	13.1	2.9	5.2
22	4.2	3.0	3.3	3.7	4.1	2.8	6.5	6.5	3.8	3.0	4.4	3.2	2.8	3.5	2.4	2.2	2.8	2.2	3.7	3.4	3.5	2.7	2.8	4.6	6.5	2.2	3.5
23	3.0	4.2	3.7	2.6	3.4	2.7	3.1	3.4	3.8	5.3	5.1	2.8	3.0	3.1	2.4	2.6	2.3	2.6	2.4	2.3	2.4	2.0	3.0	3.9	5.3	2.0	3.1
24	3.4	3.9	5.9	6.9	3.9	4.7	3.6	3.0	3.6	5.0	4.8	3.5	3.1	3.9	5.0	6.4	3.6	3.9	2.7	3.2	3.5	3.7	3.9	10.8	10.8	2.7	4.4
25	40.1	10.9	11.3	24.0	47.0	11.5	11.1	5.7	8.0	7.9	13.9	7.7	8.2	60.3	35.8	9.6	17.4	13.0	10.8	7.2	5.1	7.0	4.9	3.8	60.3	3.8	15.9
26	11.8	7.8	4.9	6.9	3.9	3.2	3.4	3.9	5.5	5.8	3.9	3.0	11.8	6.6	5.9	5.9	8.7	4.5	6.2	2.4	1.8	2.0	2.5	2.8	11.8	1.8	5.2
27	4.0	4.1	2.9	3.2	2.3	3.5	3.8	4.1	6.1	5.7	7.3	5.2	2.9	3.7	4.3	7.0	5.4	4.4	4.3	3.5	5.2	3.6	4.0	3.5	7.3	2.3	4.3
28	3.8	3.5	3.0	2.9	5.5	5.9	3.4	2.5	3.1	3.1	4.8	2.5	2.2	3.9	3.3	3.5	6.5	5.2	3.4	4.0	8.2	4.0	5.6	3.2	8.2	2.2	4.0
29	4.0	5.2	5.5	2.4	5.2	5.7	3.8	3.6	3.5	5.6	3.4	2.5	2.4	2.7	2.7	1.8	2.9	2.1	2.7	2.4	2.1	3.3	2.7	2.7	5.7	1.8	3.4
30	2.4	3.4	3.9	3.1	2.6	2.5	1.6	2.3	3.8	2.9	4.1	2.9	3.3	5.4	11.2	6.7	11.6	7.4	6.6	9.7	16.2	47.8	37.1	6.8	47.8	1.6	8.6
31	9.6	6.5	6.3	5.0	10.2	14.2	11.3	10.4	15.7	3.3	3.8	7.8	25.3	13.3	8.5	5.8	2.7	2.5	1.8	2.2	3.8	2.6	3.3	2.2	25.3	1.8	7.4
Max.	40.1	15.0	49.6	24.0	47.0	14.2	11.3	10.4	39.7	45.4	43.6	28.4	25.3	60.3	35.8	13.2	17.4	13.0	10.8	9.7	16.2	47.8	37.1	26.5	60.3		
Min.	2.4	2.6	2.5	2.0	2.3	2.3	1.6	2.3	2.6	2.5	2.3	2.5	2.2	2.7	2.4	1.8	2.3	2.1	1.8	1.9	1.8	2.0	2.4	2.2		1.6	
Avg.	6.4	4.8	5.8	4.8	5.3	4.4	4.2	4.0	5.6	5.5	6.1	5.1	5.4	6.4	5.6	5.0	5.1	4.6	4.1	3.7	4.0	5.1	5.0	4.8			5.0

Data Recovery 100.0%

744

Hours Data Available

744

Total Hours in Month

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.																																
1	1.9	2.6	4.0	3.5	4.0	2.2	2.7	3.2	2.7	4.2	2.0	3.5	2.3	3.8	3.8	7.5	15.9	24.7	24.7	44.3	9.7	3.3	8.1	5.2	44.3	1.9	7.9																																
2	4.4	4.1	3.8	6.5	5.6	5.2	6.1	4.5	3.3	2.8	3.3	3.4	3.0	3.6	4.6	5.1	5.3	3.9	3.4	4.1	4.0	3.5	3.5	3.4	6.5	2.8	4.2																																
3	2.9	2.8	3.1	3.2	3.3	3.5	3.3	3.6	3.0	2.7	3.1	3.2	3.5	3.8	4.2	3.6	4.0	3.3	3.4	3.6	3.4	3.4	3.2	3.4	4.2	2.7	3.4																																
4	3.2	2.9	3.1	4.6	4.5	3.0	3.9	2.8	5.1	7.1	7.9	5.5	4.0	4.3	4.5	4.1	3.5	5.2	5.4	5.2	7.8	7.6	11.1	12.8	12.8	2.8	5.4																																
5	22.9	31.2	21.1	13.2	19.1	9.0	10.5	6.3	5.8	6.8	5.7	4.2	4.8	5.0	4.7	4.7	5.5	9.5	4.3	4.2	3.7	3.8	3.7	3.7	31.2	3.7	8.9																																
6	4.0	3.5	3.6	3.7	3.9	4.1	3.8	3.3	3.2	8.5	5.8	4.1	5.1	4.9	5.1	4.7	4.9	9.2	9.3	6.7	6.2	5.7	6.9	7.7	9.3	3.2	5.3																																
7	8.9	22.3	8.9	9.5	9.9	5.4	4.1	4.0	3.5	3.5	3.7	3.5	3.8	3.6	3.9	3.9	3.8	4.0	3.5	5.8	4.6	9.8	7.5	9.4	22.3	3.5	6.3																																
8	3.8	4.2	4.5	4.6	4.3	4.2	4.8	4.9	4.9	5.5	5.3	5.1	5.2	5.9	4.8	4.4	7.3	12.4	17.1	19.0	13.7	13.6	12.5	7.8	19.0	3.8	7.5																																
9	7.2	5.5	4.9	6.2	6.3	20.6	12.7	11.6	7.0	5.7	5.7	3.3	4.2	4.0	3.1	3.7	3.5	3.3	3.0	3.4	3.4	3.6	3.6	3.6	20.6	3.0	5.8																																
10	3.7	4.0	3.5	3.9	4.0	5.6	3.8	4.5	3.4	4.7	3.5	3.7	4.0	3.5	3.6	3.6	3.5	4.1	4.3	3.9	3.7	3.2	4.3	4.5	5.6	3.2	3.9																																
11	5.3	5.7	6.0	4.4	6.7	5.2	6.3	4.9	9.4	8.4	10.8	7.2	5.3	4.7	4.2	4.2	4.3	4.0	4.1	4.5	8.5	10.5	12.3	9.8	12.3	4.0	6.5																																
12	5.6	4.2	9.5	11.6	18.7	23.3	23.8	15.8	17.8	12.6	11.9	7.3	14.1	15.1	6.7	4.5	6.9	7.7	9.3	13.2	5.9	22.1	5.1	3.4	23.8	3.4	11.5																																
13	4.3	2.7	4.2	3.1	2.4	3.2	2.1	3.6	2.4	2.7	3.5	5.0	8.4	8.1	8.2	8.8	10.5	34.6	6.2	6.6	13.0	9.2	11.9	5.8	34.6	2.1	7.1																																
14	7.5	2.8	3.5	4.5	6.7	48.1	9.7	5.7	9.8	7.0	9.0	13.2	7.4	10.1	5.0	5.3	4.2	4.8	4.9	5.5	5.1	4.2	3.9	6.3	48.1	2.8	8.1																																
15	3.7	4.9	4.0	3.3	3.6	3.5	3.3	4.4	4.6	4.6	4.8	6.7	6.3	6.1	7.3	7.0	7.1	9.7	7.3	8.2	12.0	8.4	3.7	8.1	12.0	3.3	5.9																																
16	4.2	2.4	4.1	3.0	3.4	2.5	3.3	3.3	2.6	3.2	2.9	8.6	8.4	2.3	5.5	2.9	3.4	4.3	6.9	4.9	9.4	12.4	9.5	6.3	12.4	2.3	5.0																																
17	7.1	9.3	10.2	7.1	7.6	10.5	3.9	3.8	3.8	3.7	4.1	3.7	3.9	4.0	3.9	4.0	3.7	3.9	4.0	3.9	4.0	3.5	3.6	3.6	10.5	3.5	5.0																																
18	3.6	3.8	3.8	3.9	3.8	3.6	3.8	3.6	3.9	3.3	3.3	3.3	3.7	3.4	3.5	3.4	4.1	6.9	9.2	12.5	6.8	29.7	20.7	2.3	29.7	2.3	6.2																																
19	3.4	32.2	7.2	5.5	5.2	4.6	3.5	3.1	3.4	3.5	3.2	3.6	3.8	3.7	4.2	3.8	4.3	3.6	3.6	4.5	3.7	3.5	3.3	3.5	32.2	3.1	5.1																																
20	3.4	3.4	3.4	3.4	3.6	4.1	7.0	6.0	4.9	3.4	4.7	3.8	4.1	4.7	4.3	4.7	3.9	3.8	3.6	3.2	3.6	3.6	4.3	6.0	7.0	3.2	4.2																																
21	7.5	4.8	3.3	3.3	3.6	3.7	5.0	4.0	7.8	10.8	3.6	4.1	3.4	4.0	4.2	4.1	4.1	3.6	3.6	3.5	3.2	3.9	3.4	3.3	10.8	3.2	4.4																																
22	3.5	3.5	3.5	3.6	4.6	4.3	4.0	4.9	3.9	5.1	4.4	4.1	5.4	5.8	4.9	6.0	6.1	6.0	5.9	4.7	4.9	4.9	5.4	11.7	11.7	3.5	5.1																																
23	21.9	9.2	4.6	13.2	44.3	3.8	7.9	10.4	10.3	5.2	3.8	6.1	8.4	13.0	14.3	29.7	27.5	15.7	13.7	8.0	18.3	12.7	17.8	9.9	44.3	3.8	13.8																																
24	6.8	4.2	4.2	6.1	29.3	47.3	10.9	6.2	8.3	5.7	6.8	8.0	8.4	12.7	32.9	10.2	25.4	19.0	23.4	14.5	5.7	11.0	16.5	7.4	47.3	4.2	13.8																																
25	5.0	6.3	6.2	4.8	5.6	4.0	3.8	4.7	4.0	5.3	6.8	6.3	5.0	4.5	4.1	4.8	5.2	5.1	4.7	5.0	7.1	40.4	12.2	9.6	40.4	3.8	7.1																																
26	9.1	8.4	10.2	15.5	17.7	15.2	8.7	11.7	3.7	5.4	5.6	9.1	15.1	11.7	11.9	8.7	8.9	5.3	4.9	3.7	5.1	5.8	3.2	2.9	17.7	2.9	8.6																																
27	3.8	3.9	4.5	28.8	9.8	9.6	5.4	5.8	5.9	6.1	9.0	8.9	9.5	9.0	6.8	5.1	7.4	9.2	4.3	3.5	3.4	20.9	8.8	3.3	28.8	3.3	8.0																																
28	7.2	29.9	7.1	28.9	9.4	11.7	12.7	17.4	25.3	10.1	14.0	15.0	14.5	15.0	10.5	6.4	6.8	6.7	6.5	5.7	5.1	5.9	14.5	11.0	29.9	5.1	12.4																																
29	9.3	5.2	5.6	4.4	4.9	4.2	3.7	7.1	4.5	4.4	6.1	4.8	6.2	7.6	8.2	7.0	6.5	6.4	6.4	5.7	4.9	8.7	10.7	7.0	10.7	3.7	6.2																																
30	11.3	4.9	4.4	5.7	7.1	23.1	44.7	17.1	17.4	16.7	19.7	10.6	15.9	19.6	17.4	32.6	19.8	42.5	17.8	15.1	5.2	9.2	5.3	10.1	44.7	4.4	16.4																																
Max.	22.9	32.2	21.1	28.9	44.3	48.1	44.7	17.4	25.3	16.7	19.7	15.0	15.9	19.6	32.9	32.6	27.5	42.5	24.7	44.3	18.3	40.4	20.7	12.8	48.1																																		
Min.	1.9	2.4	3.1	3.0	2.4	2.2	2.1	2.8	2.4	2.7	2.0	3.2	2.3	2.3	3.1	2.9	3.4	3.3	3.0	3.2	3.2	3.2	3.2	2.3		1.9																																	
Avg.	6.5	7.8	5.7	7.4	8.8	9.9	7.6	6.4	6.5	6.0	6.1	6.0	6.6	6.9	7.0	6.9	7.6	9.4	7.6	7.9	6.5	9.6	8.0	6.4			7.3																																
Total Hours in Month										720										Hours Data Available										720										Data Recovery										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

Day	2007																															Max.	Min.	Avg.					
	May																																						
1	11.7	43.0	53.8	30.9	29.1	25.0	18.7	18.1	10.0	12.3	13.1	16.3	20.4	47.6				16.8	11.4	8.9	12.1	26.2	37.6	27.3	53.8	8.9	23.3												
2	14.8	10.0	18.7	9.3	27.7	23.2	4.9	9.1	9.2	8.0	41.6	13.8	16.5	7.7	9.2	11.0	7.7	6.4	6.1	5.8	4.9	4.4	5.4	5.0	41.6	4.4	11.7												
3	5.2	7.5	4.6	9.2	6.4	6.3	7.8	8.8	11.1	10.2	8.0	13.5	15.6	24.4	29.0	17.1	18.6	7.1	10.3	15.8	13.8	7.1	11.3	7.4	29.0	4.6	11.5												
4	5.8	5.8	7.2	6.4	6.6	8.5	45.0	22.6	34.8	27.7	27.8	11.8	31.6	12.1	10.5	10.0	8.3	8.1	15.2	13.2	15.7	22.1	15.8	9.9	45.0	5.8	15.9												
5	44.3	5.1	4.8	5.1	16.9	3.9	3.9	5.3	4.4	8.4	4.8	5.2	6.5	7.2	9.7	10.5	8.5	6.3	6.8	4.1	3.0	2.4	2.0	2.8	44.3	2.0	7.6												
6	3.6	6.0	3.6	2.3	3.9	3.0	3.2	3.5	5.0	5.1	6.8	9.1	6.9	6.7	6.6	7.1	6.8	5.4	5.7	4.3	3.3	3.2	2.8	2.6	9.1	2.3	4.9												
7	2.6	2.9	3.2	2.9	7.0	11.4	5.8	8.2	12.0	6.5	6.9	7.2	11.3	13.0	10.9	17.5	11.9	9.0	12.6	14.9	6.6	9.5	3.0	6.3	17.5	2.6	8.5												
8	48.5	52.2	15.3	51.6	54.4	33.5	7.0	11.6	27.8	32.2	48.2	53.6	13.9	19.4	23.2	11.4	10.1	8.4	9.2	8.5	6.6	9.9	4.6	39.6	54.4	4.6	25.0												
9	49.6	19.3	8.4	17.0	21.2	5.7	4.1	4.1	3.9	4.3	4.9	6.6	5.4	8.3	8.1	11.3	10.6	9.4	10.4	8.2	7.7	5.6	7.5	10.3	49.6	3.9	10.5												
10	5.9	7.4	9.3	7.7	10.0	7.1	8.8	11.3	15.6	17.8	13.9	18.4	16.7	15.2	17.6	16.9	14.4	11.2	11.3	8.9	5.0	4.2	6.0	4.1	18.4	4.1	11.0												
11	2.9	4.6	8.8	8.8	6.9	4.7	5.2	3.8	5.3	5.8	6.5	7.8	9.7	9.8	10.1	9.5	9.7	10.3	7.1	6.6	5.2	3.6	3.5	3.7	10.3	2.9	6.7												
12	4.9	7.3	6.3	4.0	6.1	6.4	4.2	4.5	5.8	6.1	6.8	8.2	10.5	8.5	7.4	7.7	8.7	6.5	8.1	6.4	6.2	5.1	6.1	5.5	10.5	4.0	6.5												
13	9.9	9.9	4.1	4.8	4.5	4.6	5.0	4.9	6.3	6.8	5.6	4.8	5.5	4.8	6.9	6.5	6.2	5.9	5.2	5.2	5.0	5.0	4.8	5.7	9.9	4.1	5.7												
14	8.4	9.4	9.2	5.9	8.4	7.6	26.7	16.0	18.3	9.3	8.3	8.8	8.6	11.1	9.1	6.0	5.9	7.2	5.7	6.0	4.1	4.5	4.5	5.1	26.7	4.1	8.9												
15	9.4	6.6	11.4	5.8	6.5	7.1	4.6	9.1	9.1	9.6	16.3	9.1	8.3	7.7	11.3	11.6	12.8	12.7	15.4	42.4	14.6	4.5	8.8	3.4	42.4	3.4	10.8												
16	2.5	4.6	8.0	4.3	3.3	2.9	2.8	3.6	4.2	5.7	10.1	18.1	17.1	11.3	16.2	34.5	23.9	6.5	6.2	9.1	6.1	6.5	5.6	4.7	34.5	2.5	9.1												
17	4.6	4.9	4.5	4.5	4.3	5.0	4.2	4.7	4.8	5.0	9.7	9.8	10.7	13.0	8.6	7.8	7.1	6.0	6.2	5.5	5.1	4.8	5.0	6.1	13.0	4.2	6.3												
18	6.6	4.3	3.5	6.6	6.5	7.0	5.1	4.5	7.1	10.2	15.3	16.1	19.2	23.5	24.6	18.1	27.6	34.6	28.7	32.4	7.6	7.3	12.5	13.0	34.6	3.5	14.2												
19	7.2	6.1	4.2	4.8	4.4	2.6	4.9	5.3	4.5	9.0	14.4	8.6	11.3	12.5	10.5	10.8	9.3	9.5	7.8	6.7	4.6	5.0	30.2	12.9	30.2	2.6	8.6												
20	15.1	18.1	36.3	32.0	29.6	39.2	31.4	17.1	46.4	56.3	30.0	61.5	40.3	38.9	15.8	13.3	12.7	13.4	11.4	11.2	5.9	5.8	3.6	2.6	61.5	2.6	24.5												
21	19.6	42.0	48.6	35.6	12.6	24.7	18.5	33.5	15.8	13.8	63.7	44.1	35.4	23.0	24.1	16.0	10.1	10.5	9.9	7.1	5.3	5.1	5.0	4.6	63.7	4.6	22.0												
22	4.4	5.2	4.8	4.4	4.7	8.6	6.5	5.9	8.1	9.6	11.1	6.5	5.1	5.7	8.2	6.4	6.9	7.1	7.1	10.4	8.6	12.9	6.2	8.4	12.9	4.4	7.2												
23	8.6	47.8	11.7	7.8	6.5	4.5	15.1	6.6	6.0	7.3	6.4	5.5	5.7	5.4	5.0	6.8	7.1	5.0	4.9	4.9	4.7	5.9	5.2	5.2	47.8	4.5	8.3												
24	4.3	4.4	4.0	4.3	3.9	4.3	5.4	5.6	5.8	5.5	5.3	8.4	10.0	13.4	13.5	5.9	5.9	6.8	4.6	5.2	5.8	5.3	6.2	6.2	13.5	3.9	6.3												
25	9.2	5.8	8.3	5.8	6.8	8.4	7.6	9.2	8.2	6.9	5.6	5.1	4.8	6.0	7.2	7.6	7.9	5.9	6.3	8.2	12.8	23.7	8.7	3.9	23.7	3.9	7.9												
26	3.3	3.4	4.9	37.1	5.8	8.7	6.8	6.6	6.6	4.3	6.1	9.9	8.7	5.8	6.9	5.5	5.2	5.4	5.1	5.8	6.4	5.1	3.9	4.0	37.1	3.3	7.1												
27	4.1	4.4	5.4	4.5	4.6	4.9	5.3	7.6	6.4	7.9	9.7	7.9	9.9	10.7	9.0	7.7	8.2	8.1	6.5	5.6	4.8	4.4	5.3	5.0	10.7	4.1	6.6												
28	5.4	4.5	4.8	4.4	4.7	3.6	6.1	5.3	9.6	9.4	8.1	8.1	10.1	9.5	8.8	8.4	7.7	7.3	7.8	7.0	6.7	6.8	4.9	4.8	10.1	3.6	6.8												
29	3.6	7.1	13.9	9.4	4.5	2.3	3.9	5.1	6.6	7.0	10.4	15.5	29.2	41.4	46.9	27.4	48.8	10.8	18.9	20.9	7.8	7.8	6.9	13.3	48.8	2.3	15.4												
30	21.7	26.2	19.4	23.0	2.7	4.4	6.3	8.6	9.2	45.9	47.5	22.4	17.9	6.8	8.4	8.6	9.9	7.8	6.3	7.3	6.7	6.9	7.8	9.7	47.5	2.7	14.2												
31	6.4	7.3	5.6	5.6	5.0	6.0	5.3	5.3	5.5	6.3	6.1	7.9	6.8	7.8	11.8	16.9	13.9	7.7	8.1	8.8	7.2	6.6	5.2	6.1	16.9	5.0	7.5												
Max.	49.6	52.2	53.8	51.6	54.4	39.2	45.0	33.5	46.4	56.3	63.7	61.5	40.3	47.6	46.9	34.5	48.8	34.6	28.7	42.4	15.7	26.2	37.6	39.6	63.7														
Min.	2.5	2.9	3.2	2.3	2.7	2.3	2.8	3.5	3.9	4.3	4.8	4.8	4.8	4.8	5.0	5.5	5.2	5.0	4.6	4.1	3.0	2.4	2.0	2.6		2.0													
Avg.	11.4	12.7	11.5	11.8	10.5	9.5	9.4	8.9	10.7	12.3	15.5	14.5	13.8	14.1	13.2	11.9	11.7	9.1	9.2	10.2	7.1	7.6	7.9	8.0															

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.0	6.1	8.3	10.8	11.7	8.5	9.3	8.0	9.9	9.4	5.7	6.3	5.1	5.8	7.4	5.9	6.5	7.1	5.8	7.9	5.8	5.8	5.6	4.6	11.7	4.6	7.2
2	4.8	5.2	5.4	4.0	4.4	3.8	4.6	5.7	6.7	7.5	9.5	8.7	8.1	12.0	13.6	14.8	13.3	14.5	15.3	12.4	7.6	7.4	5.6	6.2	15.3	3.8	8.4
3	8.6	5.7	15.9	8.7	5.3	4.8	7.1	9.9	9.3	11.9	16.1	16.6	22.3	28.8	25.0	34.3	33.6	31.2	29.6	46.6	14.1	10.6	4.9	4.0	46.6	4.0	16.9
4	2.2	2.7	2.3	2.2	2.9	3.3	3.2	3.5	3.9	4.9	5.2	4.6	5.8	8.0	9.2	14.0	18.4	29.0	40.7	11.1	5.7	6.1	6.9	6.2	40.7	2.2	8.4
5	6.0	6.3	5.9	5.2	6.0	5.4	11.9	7.4	6.2	5.0	5.4	5.7	5.1	5.4	5.4	5.7	6.1	5.9	5.7	4.8	5.1	5.4	5.0	4.7	11.9	4.7	5.9
6	5.9	9.7	8.6	6.6	4.7	5.1	12.3	10.2	19.2	45.8	20.5	15.5	16.2	13.3	23.7	9.8	9.6	9.0	18.7	20.4	10.4	16.1	9.5	13.8	45.8	4.7	13.9
7	14.3	12.8	26.2	26.0	14.8	8.2	11.0	12.9	10.8	10.3	12.2	10.1	9.6	13.3	12.2	6.0	6.1	6.6	5.0	6.0	5.9	4.9	4.7	7.5	26.2	4.7	10.7
8	8.3	5.6	9.4	6.7	7.8	7.8	4.8	9.4	8.1	7.5	21.7	28.5	24.6	19.3	14.4	11.1	9.2	11.1	6.4	5.6	5.9	5.3	4.5	4.5	28.5	4.5	10.3
9	19.7	14.6	7.1	4.6	12.9	8.0	14.7	9.1	6.4	7.4	11.7	13.8	14.4	18.3	13.5	20.2	26.7	34.8	36.4	9.9	6.2	3.5	2.2	2.6	36.4	2.2	13.3
10	2.3	2.1	2.5	2.6	3.0	2.7	1.9	2.4	3.6	5.5	6.4	7.7	10.5	12.0	17.0	16.9	16.2	17.2	11.1	15.0	10.3	25.4	12.2	9.4	25.4	1.9	9.0
11	30.1	17.8	9.8	8.3	6.7	11.0	7.2	5.8	5.9	8.8	8.7	13.0	12.1	11.5	9.5	12.3	8.8	8.6	6.8	6.4	7.5	5.7	5.9	5.0	30.1	5.0	9.7
12	4.8	5.3	6.0	5.9	6.5	7.6	5.4	6.6	5.1	6.1	6.5	6.3	8.7	9.3	8.1	8.6	9.6	12.0	9.6	12.4	9.8	9.1	3.8	13.4	13.4	3.8	7.8
13	8.7	26.0	8.5	5.0	12.9	8.9	8.0	9.6	7.3	13.1	17.1	22.1	28.8	12.6	9.7	28.8	49.3	18.1	11.4	9.1	4.2	4.9	5.4	5.1	49.3	4.2	13.9
14	3.7	3.0	3.5	3.9	2.4	3.3	4.0	3.6	3.9	6.0	7.3	9.6	27.1	19.3	32.0	13.6	16.7	18.8	14.4	9.0	5.6	3.8	3.1	3.3	32.0	2.4	9.2
15	3.1	4.9	5.6	4.0	2.7	4.1	3.8	3.4	4.0	4.6	6.2	9.0	12.3	12.8	15.5	11.9	14.0	9.6	8.4	6.7	5.8	4.1	2.9	4.0	15.5	2.7	6.8
16	3.1	4.0	4.4	4.5	4.3	3.3	3.8	5.5	5.1	7.3	10.9	8.6	10.2	8.8	11.6	10.1	10.5	12.0	8.2	6.5	5.5	4.4	4.0	4.4	12.0	3.1	6.7
17	5.3	6.0	4.7	4.8	5.1	5.2	6.0	14.3	7.9	12.8	15.9	58.4	11.2	14.7	21.8	14.6	15.3	16.1	9.3	11.8	6.4	6.3	4.5	4.0	58.4	4.0	11.8
18	4.6	4.8	3.2	6.1	3.9	5.3	5.6	5.7	9.7	9.8	11.3	13.1	50.4	32.4	53.6	36.5	17.1	11.2	21.3	30.8	7.7	41.6	10.1	15.4	53.6	3.2	17.1
19	3.0	2.9	2.1	2.8	3.7	3.5	2.9	5.2	3.7	5.4	7.0	7.9	6.6	9.1	9.6	9.0	10.4	11.2	8.0	6.3	5.8	4.6	4.2	4.3	11.2	2.1	5.8
20	3.3	2.9	3.0	3.7	3.1	2.7	3.3	3.6	4.9	5.6	6.2	7.8	7.5	9.2	8.8	10.2	8.0	8.3	6.0	6.7	3.6	4.1	3.2	3.8	10.2	2.7	5.4
21	4.9	7.8	9.4	5.8	3.5	4.2	3.7	3.4	4.5	6.0	8.6	8.8	10.2	12.2	9.2	9.3	11.1	7.4	8.3	8.4	9.9	3.9	4.4	6.9	12.2	3.4	7.2
22	22.5	58.5	51.5	49.8	26.1	20.1	29.8	14.0	16.4	18.1	13.9	10.4	11.9	11.5	10.3	10.8	11.2	7.2	7.5	6.5	7.8	8.1	5.5	5.9	58.5	5.5	18.1
23	5.3	5.7	5.8	5.0	4.6	4.7	4.6	4.5	4.7	4.9	5.3	5.0	4.8	4.7	4.9	4.8	4.3	4.7	4.4	4.5	4.7	4.4	4.7	4.4	5.8	4.3	4.8
24	4.3	4.5	4.5	4.2	4.3	4.4	4.7	5.1	5.6	7.4	6.6	7.2	5.0	4.9	4.8	5.2	6.7	5.4	6.2	5.8	6.3	6.9	5.7	6.4	7.4	4.2	5.5
25	5.6	5.9	5.5	5.5	5.7	5.2	5.4	4.6	5.3	6.6	7.4	5.9	6.0	5.7	6.5	5.8	5.9	7.1	6.5	5.4	4.7	5.1	4.8	4.2	7.4	4.2	5.7
26	4.4	5.4	4.9	5.6	4.2	4.5	4.3	6.1	9.1	9.2	10.9	11.1	10.7	22.4	20.4	36.1	34.6	33.8	34.6	42.1	8.6	5.3	4.1	4.6	42.1	4.1	14.0
27	6.0	6.7	5.1	3.7	5.0	1.7	4.4	3.1	7.4	14.4	45.8	45.7	20.8	19.9	14.3	12.8	12.0	10.5	11.6	10.2	6.8	4.0	9.5	31.7	45.8	1.7	13.0
28	52.1	29.7	16.7	11.9	26.2	16.9	12.5	24.9	30.7	9.0	14.1	16.2	8.2	10.6	7.6	9.3	8.8	8.9	8.7	6.1	5.4	4.9	4.6	6.1	52.1	4.6	14.6
29	8.2	9.9	4.6	13.3	13.7	8.9	12.5	7.8	11.3	11.8	8.8	15.4	15.6	17.9	19.3	18.5	16.5	12.1	10.7	9.9	5.3	7.1	16.7	12.8	19.3	4.6	12.0
30	15.3	15.3	15.9	6.2	47.4	26.4	7.6	7.4	6.1	20.8	20.0	14.5	17.1	18.4	15.3	11.9	13.3	11.3	8.5	11.6	8.2	6.0	5.6	5.0	47.4	5.0	14.0
Max.	52.1	58.5	51.5	49.8	47.4	26.4	29.8	24.9	30.7	45.8	45.8	58.4	50.4	32.4	53.6	36.5	49.3	34.8	40.7	46.6	14.1	41.6	16.7	31.7	58.5		
Min.	2.2	2.1	2.1	2.2	2.4	1.7	1.9	2.4	3.6	4.6	5.2	4.6	4.8	4.7	4.8	4.8	4.3	4.7	4.4	4.5	3.6	3.5	2.2	2.6		1.7	
Avg.	9.2	9.9	8.9	7.9	8.8	7.0	7.3	7.4	8.1	10.1	11.8	13.8	13.6	13.5	14.5	14.0	14.3	13.3	12.8	11.9	6.9	7.8	5.8	7.1			10.2

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	4.8	9.3	3.9	4.2	13.4	5.4	6.1	5.0	5.4	8.2	9.9	11.2	12.4	16.3	9.0	8.1	9.9	8.9	5.5	4.8	4.4	4.4	4.5	44.8	44.8	3.9	9.7
2	10.6	10.3	6.3	11.4	10.8	12.9	32.4	26.7	44.0	10.1	11.4	9.8	12.4	12.9	10.4	15.0	12.5	12.4	11.4	7.5	7.9	5.5	5.4	3.8	44.0	3.8	13.1
3	4.3	4.4	7.7	21.3	28.2	9.9	5.2	7.3	7.0	8.4	12.9	13.4	11.7	16.5	19.1	33.9	15.7	10.4	7.2	5.5	4.9	6.1	7.0	5.8	33.9	4.3	11.4
4	5.1	5.2	5.3	6.6	6.2	5.0	7.9	5.2	4.9	4.7	6.7	6.3	7.2	6.3	6.4	6.7	6.5	4.2	5.0	5.6	7.1	3.9	4.9	4.8	7.9	3.9	5.7
5	4.8	4.7	5.4	3.9	4.9	10.4	13.6	11.4	12.8	9.4	10.1	11.2	11.9	10.0	9.1	12.4	8.6	15.1	38.7	5.6	5.3	5.5	5.5	6.4	38.7	3.9	9.9
6	6.6	5.2	5.8	5.3	4.7	4.7	5.3	4.9	5.9	9.1	9.4	6.2	10.3	15.3	11.7	13.2	12.0	16.0	14.5	11.0	16.0	24.1	12.1	31.9	31.9	4.7	10.9
7	11.1	7.0	3.9	6.9	8.2	10.4	8.9	11.1	34.9	12.0	28.7	40.4	34.4	40.9	33.7	18.3	19.1	17.8	18.7	22.0	27.7	20.3	12.2	9.5	40.9	3.9	19.1
8	8.3	9.0	17.7	39.4	36.2	19.9	26.2	9.4	6.2	12.9	13.8	8.5	6.4	6.7	8.4	7.1	7.0	7.3	7.3	5.7	5.3	5.5	4.3	4.0	39.4	4.0	11.8
9	4.9	6.4	7.3	5.4	7.4	4.0	3.9	4.3	5.0	6.5	10.8	14.5	13.2	25.8	9.6	39.0	29.7	16.9	15.3	18.8	13.1	12.6	11.6	4.7	39.0	3.9	12.1
10	4.0	2.3	4.0	6.2	13.8	40.2	10.6	12.4	12.1	8.8	9.8	10.0	19.3	32.2	9.0	7.8	11.5	6.7	6.2	6.2	6.1	5.8	4.8	5.7	40.2	2.3	10.6
11	5.0	7.0	6.5	4.6	3.8	4.1	5.0	5.6	5.7	9.4	9.2	10.0	11.4	12.3	9.0	12.0	12.2	11.9	11.7	8.9	6.0	5.1	5.5	10.1	12.3	3.8	8.0
12	8.5	13.3	13.4	15.7	46.0	5.3	5.5	9.2	10.9	14.2	17.3	17.1	15.9	20.3	15.5	32.4	11.0	13.0	14.7	7.5	6.6	6.6	4.2	4.0	46.0	4.0	13.7
13	4.6	4.7	5.0	5.8	5.5	5.5	6.7	5.7	6.3	5.2	8.0	7.1	5.4	5.9	6.1	6.6	6.4	7.2	6.9	4.8	5.0	5.3	4.7	5.5	8.0	4.6	5.8
14	6.1	6.1	7.1	6.8	4.9	5.3	6.9	10.5	5.0	7.9	9.7	9.7	11.1	9.6	8.2	7.4	6.8	7.0	6.0	5.9	6.2	7.1	5.7	5.0	11.1	4.9	7.2
15	7.9	6.5	10.8	12.0	13.5	16.0	17.9	23.2	18.1	12.6	10.4	12.2	11.3	30.3	13.9	7.3	6.9	7.0	6.2	5.2	5.2	4.0	4.8	7.7	30.3	4.0	11.3
16	12.5	8.2	49.8	8.3	7.9	6.4	4.1	3.8	6.2	5.5	5.4	7.5	10.1	13.4	11.4	8.1	7.6	9.1	11.0	7.3	6.6	5.2	4.0	2.6	49.8	2.6	9.3
17	3.1	3.2	3.8	3.1	2.1	1.6	2.1	3.8	4.1	8.5	14.1	17.4	41.2	46.3	29.7	20.6	11.7	11.2	8.1	6.4	7.2	6.3	5.6	3.9	46.3	1.6	11.1
18	5.8	6.6	10.7	8.6	7.3	6.2	5.9	11.2	11.0	10.7	11.9	22.3	32.8	17.0	17.3	19.0	6.7	10.0	6.3	6.5	10.1	18.8	11.0	34.0	34.0	5.8	12.8
19	10.5	4.6	5.0	3.3	2.8	6.4	6.0	5.1	4.5	5.0	5.8	9.0	16.4	20.3	33.7	47.6	25.8	19.9	10.6	7.3	9.8	12.0	8.3	8.4	47.6	2.8	12.0
20	14.9	8.2	12.7	37.4	55.9	33.6	61.4	15.6	17.4	16.5	58.0	9.7	18.8	15.6	17.1	45.3	20.1	29.1	11.4	7.6	6.2	4.7	4.1	7.3	61.4	4.1	22.0
21	15.3	31.5	28.4	33.4	12.8	10.6	5.4	23.9	19.5	6.4	10.7	24.8	52.6	11.7	11.1	7.5	5.8	6.5	5.7	7.9	9.5	8.8	7.4	11.3	52.6	5.4	15.3
22	12.4	7.7	6.5	7.5	7.2	7.0	6.0	6.4	7.7	6.8	6.7	8.1	6.6	8.7	8.0	7.4	8.4	7.2	5.9	5.1	6.5	6.3	7.8	4.6	12.4	4.6	7.2
23	4.2	5.0	4.7	6.4	9.9	17.4	14.8	11.4	7.0	7.7	6.6	8.2	8.1	7.2	6.3	5.0	4.7	4.9	5.0	5.4	5.0	5.0	5.0	4.7	17.4	4.2	7.1
24	4.4	4.4	4.2	4.0	4.2	4.3	4.8	4.8	6.7	4.5	5.1	6.0	6.3	9.4	9.0	9.2	6.8	7.3	9.1	10.0	9.7	16.0	6.5	8.8	16.0	4.0	6.9
25	10.6	7.8	16.6	32.7	23.4	6.1	22.8	7.3	5.6	6.0	5.5	6.1	12.6	8.3	9.8	12.8	7.2	6.5	8.4	6.6	14.1	7.0	5.9	9.5	32.7	5.5	10.8
26	9.9	17.8	42.3	54.1	3.9	3.7	4.0	3.2	3.8	3.4	4.8	9.9	13.4	15.2	16.6	25.9	35.5	44.5	25.0	6.1	4.8	7.5	30.1	12.2	54.1	3.2	16.6
27	13.0	6.9	4.8	3.8	4.0	2.7	2.9	2.5	2.9	4.1	5.5	8.9	10.7	8.3	8.1	11.2	9.1	12.2	15.4	8.0	7.6	11.5	8.5	11.0	15.4	2.5	7.6
28	4.1	3.3	3.9	3.5	4.9	3.9	4.2	7.9	3.8	4.9	4.8	7.3	12.0	11.6	8.5	10.1	9.9	8.0	6.9	8.7	5.3	3.5	4.3	5.1	12.0	3.3	6.3
29	8.8	9.7	7.5	7.6	4.1	3.7	3.7	5.0	5.2	5.1	8.2	11.1	11.7	9.0	8.5	8.6	11.2	12.1	9.6	10.8	7.2	3.9	5.3	4.6	12.1	3.7	7.6
30	3.5	3.9	4.0	5.6	4.5	5.5	4.4	9.2	10.0	14.7	37.3	15.7	12.5	20.1	33.2	21.9	8.2	11.2	8.7	7.1	7.7	7.7	10.3	9.4	37.3	3.5	11.5
31	8.9	11.9	22.7	19.8	7.7	7.8	13.9	4.9	6.6	5.9	6.0	6.5	6.6	6.9	7.1	7.1	10.3	9.9	9.7	7.2	7.0	6.6	5.5	5.1	22.7	4.9	8.8
Max.	15.3	31.5	49.8	54.1	55.9	40.2	61.4	26.7	44.0	16.5	58.0	40.4	52.6	46.3	33.7	47.6	35.5	44.5	38.7	22.0	27.7	24.1	44.8	34.0	61.4		
Min.	3.1	2.3	3.8	3.1	2.1	1.6	2.1	2.5	2.9	3.4	4.8	6.0	5.4	5.9	6.1	5.0	4.7	4.2	5.0	4.8	4.4	3.5	4.0	2.6		1.6	
Avg.	7.7	7.8	10.9	12.7	11.9	9.2	10.6	9.0	9.9	8.2	12.1	11.8	15.0	15.8	13.4	15.9	11.8	12.0	10.7	7.8	8.1	8.2	8.6	8.6			10.7

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	5.4	5.0	5.1	4.9	5.0	5.0	5.7	5.0	5.0	4.4	4.4	4.7	5.1	6.0	6.1	5.3	5.7	6.1	6.1	5.4	4.7	4.8	4.5	4.6	6.1	4.4	5.2
2	4.9	5.2	4.7	4.4	4.9	4.6	4.7	4.9	4.7	4.7	4.7	4.9	4.7	4.7	5.2	5.0	4.9	5.2	4.9	4.9	4.6	4.8	5.0	5.9	5.9	4.4	4.9
3	6.2	5.9	5.9	5.6	6.1	5.5	5.2	5.0	4.6	5.5	6.5	5.3	5.5	5.2	5.4	5.6	5.5	5.3	5.2	5.6	5.0	4.7	5.3	4.6	6.5	4.6	5.4
4	4.3	4.5	5.0	4.8	4.6	4.7	5.0	5.4	5.0	5.1	5.0	5.5	5.9	6.4	6.1	6.8	5.8	5.2	5.1	4.8	4.9	6.3	6.2	5.1	6.8	4.3	5.3
5	5.7	6.5	5.8	5.2	5.5	9.5	10.8	6.6	6.8	6.7	5.6	6.6	7.9	5.9	6.2	6.3	5.8	6.5	4.8	3.9	3.8	4.5	5.2	4.9	10.8	3.8	6.1
6	3.8	3.9	3.2	4.4	8.8	8.2	4.3	3.2	4.3	4.8	5.4	5.3	5.3	5.4	4.9	6.8	4.9	5.5	5.9	4.0	4.4	3.6	3.5	3.2	8.8	3.2	4.9
7	3.8	5.0	4.5	4.1	3.3	4.0	4.4	3.5	4.6	4.8	6.7	6.9	7.1	7.3	7.7	7.7	6.9	7.3	6.8	5.7	5.1	4.1	3.2	5.2	7.7	3.2	5.4
8	5.6	4.7	6.1	7.6	4.0	5.3	5.4	4.9	4.8	4.8	5.3	6.8	7.7	9.0	9.3	13.7	9.1	11.7	6.8	6.2	4.1	4.8	2.8	2.6	13.7	2.6	6.4
9	2.2	2.8	2.9	2.8	2.7	3.0	2.9	2.2	3.6	5.8	11.3	9.3	22.6	47.6	41.2	46.9	38.8	25.7	10.2	8.9	6.1	14.1	13.2	14.6	47.6	2.2	14.2
10	9.8	8.8	3.7	3.8	3.5	3.4	5.9	20.5	25.3	11.0	14.3	19.4	23.6	28.1	26.3	17.3	17.1	11.1	7.9	5.9	3.8	2.7	3.0	3.4	28.1	2.7	11.6
11	7.0	5.0	22.2	3.0	9.1	10.5	11.9	8.3	7.5	6.7	13.2	86.4	41.7	25.4	30.6	15.7	19.7	9.7	8.4	6.0	10.0	11.7	9.6	19.5	66.4	3.0	15.8
12	22.8	34.7	10.2	22.2	19.6	21.5	9.9	30.8	22.3	14.1	41.6	49.6	14.4	27.1	17.2	25.1	10.2	23.4	9.2	9.6	6.0	21.3	3.4	3.6	49.6	3.4	19.6
13	24.3	28.2	15.4	16.0	8.4	31.6	34.3	17.2	14.3	19.9	19.1	21.2	14.6	15.5	15.1	10.9	16.0	9.3	11.7	9.9	10.2	6.6	6.4	6.2	34.3	6.2	15.9
14	5.5	5.1	5.2	28.4	67.5	54.7	56.1	9.9	7.7	5.9	5.6	6.0	5.8	8.3	7.2	11.9	15.0	12.1	7.6	17.8	11.4	13.5	7.0	4.3	67.5	4.3	15.8
15	3.7	3.6	4.4	3.9	4.2	3.7	3.9	3.6	4.1	4.2	4.7	5.0	5.1	5.4	5.4	5.9	4.8	5.0	5.0	4.4	5.2	2.9	4.1	5.8	5.9	2.9	4.5
16	3.6	4.5	7.8	7.2	26.2	15.7	34.0	42.5	14.3	8.3	41.1	16.5	26.2	39.0	45.3	47.7	62.4	21.1	14.8	6.4	7.5	8.7	7.4	8.8	62.4	3.6	21.5
17	5.1	4.4	5.1	6.8	6.5	6.8	10.6	4.7	6.3	9.1	6.6	7.4	8.0	8.2	9.0	7.0	7.8	6.3	5.8	5.4	4.6	4.6	4.1	4.4	10.6	4.1	6.5
18	3.9	4.3	4.5	4.8	4.8	4.5	4.2	4.3	4.3	4.6	4.6	4.2	4.3	4.4	4.8	4.6	4.8	5.3	5.5	5.2	4.8	4.8	5.2	4.7	5.5	3.9	4.6
19	5.1	4.9	4.7	4.6	5.1	5.2	5.8	5.7	5.1	4.7	5.5	4.9	4.7	4.6	4.8	4.9	4.7	4.7	4.9	5.3	5.0	5.3	5.1	4.7	5.8	4.6	5.0
20	4.7	5.3	5.2	4.6	4.9	4.9	5.3	5.4	5.0	4.5	5.0	5.6	6.3	6.4	5.8	6.3	5.8	7.2	6.0	4.6	4.8	4.9	4.3	6.1	7.2	4.3	5.4
21	4.7	4.0	4.1	4.2	4.4	3.8	4.4	4.1	4.2	4.4	4.8	4.8	4.6	4.4	4.9	5.1	5.2	5.7	6.1	5.0	4.5	5.2	4.3	4.2	6.1	3.8	4.6
22	4.3	4.3	4.1	3.7	3.6	4.3	4.6	4.2	4.3	4.6	4.6	5.3	4.8	5.2	5.2	4.7	4.8	5.1	4.5	4.3	4.1	3.8	3.7	5.6	5.6	3.6	4.5
23	4.9	4.6	5.7	9.4	26.5	22.9	33.7	31.6	10.7	3.9	6.2	9.1	5.0	6.8	7.5	6.9	4.9	5.9	4.2	4.1	2.8	2.9	2.7	4.6	33.7	2.7	9.5
24	3.0	4.9	3.4	3.1	2.9	2.6	3.1	3.7	4.6	5.1	5.5	6.6	7.2	7.0	11.2	24.3	6.4	18.8	9.3	10.3	10.2	8.4	8.5	8.8	24.3	2.6	7.4
25	5.7	13.3	9.5	11.4	12.7	4.7	10.3	19.3	16.1	7.1	10.2	12.4	9.4	17.0	9.6	10.2	16.3	8.9	6.7	8.4	10.4	5.0	8.6	16.4	19.3	4.7	10.8
26	9.1	6.0	4.4	4.8	8.0	3.7	5.7	7.0	4.2	7.0	13.9	8.9	12.5	8.9	8.5	9.5	7.4	6.9	8.6	12.9	9.7	8.0	10.6	5.3	13.9	3.7	8.0
27	5.0	4.4	4.7	4.7	10.2	17.7	15.3	21.8	7.6	6.9	12.3	13.0	9.4	11.2	12.8	11.2	20.4	8.4	9.9	12.7	9.4	18.8	13.4	7.4	21.8	4.4	11.2
28	10.5	3.8	8.6	14.6	51.5	25.5	37.7	19.5	20.7	36.8	31.6	24.8	37.0	40.8	15.9	21.0	35.8	14.5	9.5	5.0	2.8	3.6	6.5	3.9	51.5	2.8	20.1
29	4.0	6.6	8.2	6.3	7.5	5.8	5.2	3.9	4.0	5.0	5.8	5.8	4.3	6.7	7.5	7.5	7.9	7.7	5.3	5.5	3.7	3.6	3.8	2.7	8.2	2.7	5.6
30	3.5	5.3	4.8	4.0	3.3	2.9	2.9	4.1	4.2	3.9	5.1	8.8	12.4	11.8	13.0	12.3	12.6	15.3	18.4	14.4	13.1	7.1	5.1	4.9	18.4	2.9	8.0
31	2.8	6.4	2.5	5.0	4.1	4.0	4.6	4.4	5.7	6.5	6.4	9.5	19.5	22.0	25.9	20.6	37.5	31.3	34.5	41.4	15.1	18.6	7.5	5.0	41.4	2.5	14.2
Max.	24.3	34.7	22.2	28.4	67.5	54.7	56.1	42.5	25.3	36.8	41.6	66.4	41.7	47.6	45.3	47.7	62.4	31.3	34.5	41.4	15.1	21.3	13.4	19.5	67.5		
Min.	2.2	2.8	2.5	2.8	2.7	2.6	2.9	2.2	3.6	3.9	4.4	4.2	4.3	4.4	4.8	4.6	4.7	4.7	4.2	3.9	2.8	2.7	2.7	2.6		2.2	
Avg.	6.3	7.0	6.2	7.1	10.9	10.0	11.5	10.2	7.9	7.4	10.4	12.0	11.4	13.3	12.4	12.7	13.4	10.4	8.4	8.2	6.5	7.2	5.9	6.2			9.3

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	34.4	26.9	10.5	13.5	16.8	5.4	7.5	33.1	29.8	8.5	5.8	9.2	14.2	10.0	12.6	9.8	11.3	11.4	7.2	6.7	4.4	4.1	3.6	4.3	34.4	3.6	12.5
2	4.5	4.9	3.5	4.6	5.4	7.1	4.8	4.9	7.4	10.1	12.6	14.2	13.8	49.6	44.8	28.5	1.4	6.9	0.2	3.2	0.0	0.0	0.1	0.1	49.6	0.0	9.7
3	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1							29.0	20.2	20.8	4.5	4.5	4.4	4.6	4.7	4.9	29.0	0.0	5.8
4	5.7	5.6	5.2	11.4	7.8	10.0	40.6	10.1	19.2	11.9	17.9	20.1	22.0	21.9	17.9	25.4	23.6	7.5	11.0	8.4	5.9	2.8	8.4	3.2	40.6	2.8	13.5
5	7.4	9.6	12.2	8.9	7.9	8.4	14.2	12.9	11.1	89.1	68.2	13.3	22.9	19.8	17.9	43.6	23.9	31.3	14.7	5.3	32.7	34.0	10.3	54.0	89.1	5.3	23.9
6	30.7	14.6	6.9	91.8	84.7	33.5	50.8	17.3	11.8	7.2	12.0	7.6	10.6	8.4	9.3	19.0	12.6	7.8	6.8	4.1	8.0	11.3	18.8	19.7	91.8	4.1	21.1
7	11.8	7.7	7.5	7.5	6.5	7.5	7.2	5.4	6.9	5.1	5.0	4.7	4.6	4.9	4.9	5.0	5.0	4.9	5.1	5.0	5.0	4.6	4.8	4.9	11.8	4.6	5.9
8	4.9	5.0	4.8	5.1	5.9	6.0	8.5	5.8	6.2	8.5	6.4	8.9	6.9	7.5	7.1	10.4	7.2	12.1	13.1	14.3	8.9	14.4	5.6	6.3	14.4	4.8	7.9
9	5.5	7.2	5.6	5.3	5.4	6.7	8.7	7.1	5.8	6.7	6.2	7.8	7.7	8.4	8.1	7.9	9.1	16.8	50.1	34.7	24.3	6.8	11.3	9.7	50.1	5.3	11.4
10	42.8	35.6	21.0	18.5	16.0	38.6	18.1	48.0	54.7	52.5	12.9	9.3	8.8	8.3	7.2	5.5	5.4	9.0	7.5	6.5	5.2	4.8	4.5	5.6	54.7	4.5	18.6
11	5.0	5.3	5.3	4.9	5.0	5.0	5.6	5.1	5.1	5.8	6.7	5.1	5.4	5.1	5.5	5.7	5.2	5.5	4.8	5.2	4.9	4.8	5.1	5.4	6.7	4.8	5.3
12	4.5	4.4	4.8	4.8	7.3	7.8	5.5	5.6	11.7	9.9	11.9	14.8	12.9	10.5	11.8	11.0	7.9	9.4	9.8	6.0	6.4	6.8	9.0	9.3	14.8	4.4	8.5
13	21.3	8.3	4.8	5.1	8.0	5.8	5.2	6.2	10.3	14.5	10.9	10.8	10.0	9.9	10.2	11.5	7.0	19.1	8.3	26.3	10.3	9.3	16.0	24.0	26.3	4.8	11.4
14	8.3	17.6	10.7	8.6	6.7	6.4	6.7	36.5	18.1	85.7	82.0	34.8	48.0	29.1	21.4	28.5	22.9	7.9	10.1	3.6	3.0	2.3	2.7	4.4	85.7	2.3	21.1
15	7.0	8.6	3.1	3.2	4.0	3.9	8.1	5.1	4.0	8.2	5.0	7.4	6.9	11.0	6.6	7.9	8.3	8.0	6.0	3.7	2.4	5.2	7.0	5.7	11.0	2.4	6.1
16	3.3	4.5	4.2	3.8	4.4	9.8	5.4	8.0	7.8	9.5	9.8	11.3	10.8	10.4	11.5	10.5	11.2	7.6	11.7	17.5	4.9	4.1	5.1	11.8	17.5	3.3	8.3
17	82.4	54.1	61.7	74.3	40.3	17.9	8.1	4.6	10.5	11.1	12.3	9.3	16.4	6.8	10.8	10.8	16.1	16.6	9.5	16.9	6.1	8.8	7.7	7.8	82.4	4.6	21.6
18	9.4	7.9	5.7	7.6	7.8	6.4	7.2	18.5	11.5	7.1	5.5	5.6	4.8	4.9	5.4	5.5	5.4	5.4	4.8	6.1	5.3	6.3	16.0	14.4	18.5	4.8	7.7
19	10.8	8.1	6.9	17.7	9.3	9.7	13.8	9.2	16.5	11.4	8.8	8.8	7.8	8.1		7.6	6.0	7.0	8.0	7.6	7.3	10.4	9.5	8.4	17.7	6.0	9.5
20	7.4	6.4	6.9	6.1	5.5	5.4	5.1	5.8	5.2	5.7	5.9	9.3	5.7	10.2	7.6	11.0	7.9	13.5	20.7	20.6	15.9	44.4	24.5	4.5	44.4	4.5	10.9
21	8.9	4.7	11.3	13.9	3.2	5.9	4.2	3.7	3.1	4.1	4.5	6.3	6.1	6.6	7.1	8.6	6.8	7.1	8.2	5.6	5.4	6.8	12.0	7.3	13.9	3.1	6.7
22	4.7	8.9	9.4	21.6	16.6	11.2	7.4	13.9	62.7	35.6	9.8	4.1	6.2	6.6	5.5	4.8	4.7	9.3	5.3	5.0	4.7	4.5	5.0	5.0	62.7	4.1	11.3
23	5.4	6.5	14.7	10.6	20.2	21.6	7.2	8.8	22.7	6.2	18.5	12.5	7.4	6.8	6.1	5.9	6.5	5.5	9.5	7.6	14.8	6.0	8.6	8.3	22.7	5.4	10.3
24	7.7	5.2	8.0	17.4	6.6	10.2	12.1	7.2	6.2	6.1	5.4	6.0	10.2	13.4	22.7	14.5	18.5	14.9	9.9	17.8	10.6	12.5	11.5	12.0	22.7	5.2	11.1
25	21.4	8.9	6.7	8.7	6.5	6.3	6.6	5.5	5.2	5.6	10.4	12.5	14.2	8.6	11.1	9.3	15.7	6.9	10.7	9.8	7.6	7.0	7.3	4.8	21.4	4.8	9.0
26	6.4	6.9	7.8	6.4	7.4	13.2	19.9	72.7	36.0	63.7	19.3	13.1	23.9	32.9	51.5	62.2	72.3	11.1	13.0	4.1	6.1	6.2	4.3	3.5	72.7	3.5	23.5
27	3.3	3.5	4.5	12.1	27.4	40.4	30.2	59.0	36.3	17.4	38.3	17.0	17.0	11.3	11.1	8.3	11.9	6.1	5.3	5.8	5.1	4.7	4.7	4.4	59.0	3.3	16.0
28	4.8	5.2	4.8	4.8	5.0	4.5	5.5	5.6	5.2	5.4	5.8	6.3	5.3	5.1	5.5	7.5	11.3	11.4	8.8	10.1	17.3	81.5	61.5	13.6	81.5	4.5	12.6
29	2.7	5.9	2.2	3.8	3.7	3.8	3.9	5.9	8.0	5.5	9.8	7.5	90.1	15.0	15.9	9.2	6.6	19.1	10.8	10.8	39.1	11.3	8.8	13.5	90.1	2.2	13.0
30	8.4	8.9	8.7	12.1	9.0	8.3	7.4	9.6	7.1	6.4	7.7	30.4	6.4	11.0	10.9	10.3	16.7	11.3	12.1	9.2	24.3	34.6	19.3	9.9	34.6	6.4	12.5
Max.	82.4	54.1	61.7	91.8	84.7	40.4	50.8	72.7	62.7	89.1	82.0	34.8	90.1	49.6	51.5	62.2	72.3	31.3	50.1	34.7	39.1	81.5	61.5	54.0	91.8		
Min.	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	3.1	4.1	4.5	4.1	4.6	4.9	4.8	1.4	4.9	0.2	3.2	0.0	0.0	0.1	0.1		0.0	
Avg.	12.7	10.2	9.0	13.8	12.0	10.9	11.2	14.7	15.4	18.1	15.0	11.3	14.7	12.5	13.1	14.5	13.0	11.0	10.2	9.7	10.0	12.1	10.6	9.7			12.3

Total Hours in Month 720 Hours Data Available 712 Data Recovery 98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	14.9	5.6	8.9	13.3	17.6	8.8	6.3	8.6	22.2	18.9	13.5	9.7	22.1	7.3	6.3	9.2	6.3	5.5	3.8	4.6	4.9	3.1	3.6	3.9	22.2	3.1	9.5
2	3.8	3.5	3.4	3.4	3.1	3.4	3.6	3.7	3.4	3.2	3.3	4.0	3.5	4.0	6.4	6.8	5.7	5.8	4.8	3.1	3.2	3.4	3.3	4.0	6.8	3.1	4.0
3	2.9	4.4	4.2	4.8	3.8	3.2	4.9	3.5	3.9	5.0	5.6	5.7	5.8	9.4	8.5	7.8	7.7	6.3	9.5	18.9	42.0	26.9	19.6	58.7	58.7	2.9	11.4
4	44.6	41.8	10.2	17.1	9.4	8.0	7.3	11.9	5.0	7.4	4.4	4.8	4.5	4.4	4.7	5.2	5.4	5.5	5.7	5.0	7.0	5.8	6.0	6.2	44.6	4.4	9.9
5	8.6	8.9	5.3	7.4	5.6	5.7	6.7	7.3	5.1	5.6	5.2	7.9	9.12	14.6	4.0	3.5	4.1	6.5	3.9	5.6	8.2	6.6	5.5	3.6	91.2	3.5	9.9
6	5.8	4.4	4.5	3.2	3.2	3.9	4.1	4.0	4.0	3.3	3.6	4.4	4.7	8.1	4.9	4.5	4.1	4.7	3.5	6.1	6.6	5.0	4.4	4.6	8.1	3.2	4.6
7	4.0	3.9	4.1	4.0	5.1	5.3	3.9	4.1	3.8	3.9	3.9	3.7	4.4	4.7	4.1	4.8	4.8	5.4	3.6	4.0	4.2	3.7	4.9	4.8	5.4	3.6	4.3
8	5.3	6.5	5.9	5.9	4.2	3.4	7.8	7.5	7.4	3.1	4.0	7.2	4.4	4.6	5.5	6.0	4.7	4.4	3.3	3.8	3.7	3.4	5.4	3.3	7.8	3.1	5.0
9	5.2	6.5	4.2	10.8	15.4	46.2	53.2	22.1	39.4	61.1	22.3	22.0	60.9	14.2	10.5	11.8	7.9	5.4	5.0	6.4	7.5	11.3	3.1	4.5	61.1	3.1	19.0
10	2.8	3.3	3.8	4.1	4.5	5.0	4.0	5.8	4.3	3.6	4.1	5.5	6.8	7.2	6.4	5.7	5.6	4.8	6.6	5.5	9.4	9.0	13.8	8.4	13.8	2.8	5.8
11	8.1	5.6	5.1	7.3	6.0	20.2	8.6	44.9	64.9	14.4	7.5	7.5	8.0	5.9	5.4	5.2	5.1	5.7	4.4	6.2	6.9	4.0	3.9	4.1	64.9	3.9	11.0
12	4.0	4.3	4.0	6.6	6.1	7.0	4.4	11.5	50.1	48.4	49.6	61.9	24.3	8.7	12.6	13.4	14.0	21.3	12.6	9.5	4.6	11.5	4.9	3.4	61.9	3.4	16.6
13	4.3	5.8	2.6	3.2	5.2	9.3	8.3	4.8	4.0	4.1	7.8	5.2	6.7	6.7	8.1	6.3	6.4	5.8	3.6	3.0	4.4	4.5	3.4	3.7	9.3	2.6	5.3
14	3.6	4.6	4.2	3.3	3.1	3.2	4.3	3.2	3.9	7.7	6.5	7.5	5.9	10.2	10.4	7.0	5.1	6.9	7.5	8.3	6.9	3.4	10.5	9.3	10.5	3.1	6.1
15	12.6	8.2	12.4	9.8	10.0	21.3	63.6	22.6	5.7	13.0	42.8	36.5	19.7	8.4	15.6	27.8	31.8	14.9	13.2	16.2	16.9	5.2	14.4	11.2	63.6	5.2	18.9
16	8.0	4.8	7.9	7.7	5.4	4.0	4.3	3.9	4.5	3.4	4.5	5.1	8.0	3.4	5.4	5.9	3.6	3.8	7.0	4.4	3.9	4.3	3.1	3.9	8.0	3.1	5.0
17	3.9	4.9	4.9	4.8	2.2	2.6	2.2	2.5	2.6	2.2	4.2	4.8	3.6	3.7	4.3	4.8	8.0	5.0	3.2	2.5	3.2	2.8	2.4	2.3	8.0	2.2	3.7
18	3.4	4.0	4.6	3.1	3.8	4.1	5.5	6.3	5.7	4.0	6.4	4.7	5.7	9.0	5.0	10.4	7.2	13.0	3.3	2.4	2.9	5.4	3.3	3.9	13.0	2.4	5.3
19	4.6	6.2	10.6	7.1	6.8	13.0	10.8	12.2	26.9	19.1	22.4	14.1	54.9	61.6	27.7	13.9	12.0	11.9	15.1	9.0	14.9	13.5	9.4	13.4	61.6	4.6	17.1
20	17.1	10.1	10.3	8.4	11.3	6.5	6.5	12.1	8.9	8.5	12.1	14.9	7.4	6.3	7.2	5.6	6.6	7.8	7.4	6.1	8.1	7.3	7.0	5.8	17.1	5.6	8.7
21	5.2	6.2	10.5	7.8	5.1	6.2	4.4	7.1	8.1	29.4	9.2	15.0	16.2	27.1	4.8	12.5	25.2	81.6	39.4	23.2	5.1	4.9	4.3	3.8	81.6	3.8	15.1
22	5.0	4.2	6.2	4.8	3.9	7.1	4.3	5.9	6.0	81.0	54.2	38.1	67.4	8.1	7.5	8.8	6.3	17.5	60.3	24.6	20.7	39.1	18.5	26.7	81.0	3.9	21.9
23	6.9	13.3	33.4	18.1	12.9	7.8	36.5	9.2	9.1	15.1	45.1	43.1	30.7	12.6	17.9	8.3	19.9	23.3	6.9	5.9	6.5	5.1	6.3	23.2	45.1	5.1	17.4
24	26.3	6.3	46.5	12.7	6.8	10.9	7.5	8.4	14.8	9.7	15.7	3.9	10.7	7.2	7.5	7.0	8.2	5.1	19.2	6.2	7.5	5.1	8.1	6.4	46.5	3.9	11.2
25	9.2	5.2	4.5	5.9	5.4	4.4	4.4	4.3	4.6	4.5	3.9	4.1	4.1	4.1	4.3	4.3	4.6	4.6	4.7	4.5	9.2	6.1	10.0	5.2	10.0	3.9	5.3
26	7.3	8.8	9.7	7.6	9.9	6.4	9.0	13.3	8.9	10.6	8.5	7.8	9.9	6.2	6.2	10.0	7.7	11.6	8.7	6.6	4.3	5.6	3.7	5.7	13.3	3.7	8.1
27	4.6	5.9	4.4	5.2	6.8	8.9	6.4	9.5	8.9	12.8	10.0	14.5	19.2	16.1	7.2	5.7	6.4	3.9	3.7	6.0	11.6	23.4	14.1	11.5	23.4	3.7	9.4
28	10.8	7.2	11.2	12.5	31.3	37.1	10.2	9.4	9.5	8.9	12.8	7.1	10.6	10.8	12.0	9.3	7.2	7.0	7.2	4.9	7.2	4.0	4.5	4.3	37.1	4.0	10.7
29	4.3	4.6	5.0	4.7	4.5	4.5	4.5	4.3	4.4	4.2	4.1	4.1	4.6	4.8	5.2	5.1	5.2	4.7	10.3	10.1	4.6	4.2	4.5	5.2	10.3	4.1	5.1
30	7.9	9.8	13.1	5.5	6.6	5.3	14.1	18.9	7.8	2.9	3.3	4.2	7.0	42.7	34.9	54.1	13.0	5.4	9.0	16.2	24.5	21.0	20.5	19.3	54.1	2.9	15.3
31	28.1	13.8	15.1	15.7	6.4	8.3	7.5	5.6	5.1	4.6	5.0	5.1	5.7	8.3	9.5	13.1	12.1	8.6	7.9	4.6	8.8	5.2	8.7	10.5	28.1	4.6	9.3

Total Hours in Month 744 Hours Data Available 744 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.												
1	6.3	10.2	15.1	17.1	16.2	21.6	13.3	13.2	42.3	11.8	9.4	12.7	9.1	8.3	24.1	28.8	52.7	13.3	6.1	3.8	3.3	3.2	2.9	2.8	52.7	2.8	14.5												
2	3.5	2.4	6.6	24.1	15.8	8.2	11.9	10.2	9.6	8.9	4.9	3.7	4.3	9.4	3.7	4.7	6.8	2.5	2.2	4.6	2.4	2.5	3.0	3.6	24.1	2.2	6.6												
3	2.4	3.1	4.6	5.5	3.8	3.9	2.9	11.0	13.1	17.2	27.3	13.4	30.4	24.4	9.7	11.1	15.9	6.5	10.8	10.4	10.4	5.8	7.9	6.7	30.4	2.4	10.8												
4	6.2	4.0	3.7	3.9	4.1	4.0	3.9	3.9	3.7	3.9	4.2	3.9	4.7	4.9	3.9	4.2	4.2	4.7	4.9	7.6	6.3	5.3	4.8	4.5	7.6	3.7	4.6												
5	4.1	3.8	4.0	3.6	3.5	4.6	5.5	5.5	4.1	4.1	5.9	5.7	4.7	5.5	4.1	4.9	5.5	4.3	5.6	5.1	5.6	7.4	5.7	6.5	7.4	3.5	5.0												
6	5.5	3.9	4.1	3.8	3.9	5.3	5.5	4.3	4.5	4.1	3.8	3.9	4.0	3.8	4.0	4.3	4.7	4.1	4.3	4.7	4.2	4.1	10.0	5.0	10.0	3.8	4.6												
7	7.1	16.8	5.8	5.3	4.1	4.4	3.8	3.7	5.2	5.2	5.3	5.4	4.4	7.3	9.7	9.2	5.2	6.2	12.1	5.0	8.7	6.1	9.0	47.0	47.0	3.7	8.4												
8	18.0	11.4	9.8	5.2	5.7	4.7	4.7	4.1	4.0	3.7	4.0	4.0	5.9	4.9	5.2	4.5	4.7	5.1	4.1	4.5	5.0	4.3	5.8	6.2	18.0	3.7	5.8												
9	4.5	5.8	4.9	5.7	5.1	6.6	5.9	4.7	6.0	6.1	5.7	3.8	6.2	4.0	4.0	3.8	4.5	3.7	5.4	7.1	5.5	26.4	21.2	53.6	53.6	3.7	8.8												
10	17.7	30.3	7.2	5.8	5.1	3.2	5.3	3.9	4.9	5.6	3.4	3.3	6.4	2.8	6.9	2.4	2.7	10.2	5.9	9.8	5.7	6.7	5.1	6.3	30.3	2.4	6.9												
11	7.2	4.2	8.5	6.9	5.4	10.4	7.1	5.0	5.0	6.7	6.0	6.0	5.2	5.5	11.5	6.1	4.3	7.4	5.9	7.8	10.7	22.0	13.2	10.6	22.0	4.2	7.9												
12	17.1	10.0	28.2	50.2	47.5	44.7	27.5	24.4	14.3	34.6	13.0	31.4	12.4	10.1	17.4	7.0	4.8	6.0	6.9	10.6	9.4	9.4	4.9	4.8	50.2	4.8	18.6												
13	4.9	4.3	4.0	4.2	7.0	5.0	4.9	4.0	4.3	4.0	4.9	4.7	7.1	25.8	31.6	35.4	46.7	7.2	7.4	6.1	4.1	6.0	5.9	7.9	46.7	4.0	10.3												
14	5.2	6.3	5.3	6.0	6.8	5.4	4.8	8.1	17.8	11.0	12.5	9.0	7.7	10.0	6.6	15.6	16.7	5.4	5.5	31.5	31.0	32.4	22.3	30.2	32.4	4.8	13.0												
15	8.6	4.8	11.5	8.6	5.8	3.8	11.0	6.1	8.6	4.7	5.6	5.2	5.4	5.8	3.7	4.9	6.6	8.3	3.1	4.7	4.8	4.6	4.5	6.0	11.5	3.1	6.1												
16	3.1	2.8	2.8	3.2	3.2	3.7	3.1	3.0	3.0	3.0	3.3	3.2	3.5	2.5	2.6	2.8	4.3	3.7	3.0	2.7	2.8	2.7	2.8	3.5	4.3	2.5	3.1												
17	4.0	3.9	6.3	4.4	2.9	3.7	3.8	3.3	4.2	3.6	3.3	3.8	4.3	2.7	3.2	3.6	4.7	3.5	10.0	7.1	3.8	3.8	2.2	4.1	10.0	2.2	4.2												
18	6.1	4.1	4.6	4.6	6.7	6.6	7.8	7.1	4.2	4.1	5.3	4.6	4.6	3.2	3.4	6.8	5.6	7.2	3.2	6.6	13.5	77.8	8.3	12.0	77.8	3.2	9.1												
19	6.8	12.1	9.8	42.0	9.9	20.5	8.8	24.3	6.2	14.0	5.8	10.0	4.2	6.5	5.4	8.7	5.8	8.5	11.4	7.8	6.6	12.2	6.4	5.2	42.0	4.2	10.8												
20	4.6	4.0	4.1	4.0	4.1	4.4	3.7	3.4	3.5	3.4	3.5	3.5	3.5	3.7	3.3	3.9	4.2	4.1	6.3	8.3	10.8	16.8	12.1	7.5	16.8	3.3	5.5												
21	10.2	4.8	7.9	6.2	4.1	4.1	9.1	4.1	5.1	5.2	4.3	4.4	4.3	3.9	4.1	5.8	4.8	4.9	3.7	4.0	3.7	4.6	4.0	5.5	10.2	3.7	5.1												
22	5.5	10.8	4.5	6.1	9.7	19.3	16.4	11.0	8.8	4.7	3.7	4.0	4.1	4.2	4.6	5.4	6.4	6.5	5.7	5.0	4.0	4.8	12.2	7.2	19.3	3.7	7.3												
23	6.6	4.1	5.2	7.2	9.0	4.0	5.3	8.0	13.7	8.9	9.8	11.9	9.6	11.0	10.5	47.2	13.8	19.2	41.9	11.3	7.4	5.5	2.7	5.4	47.2	2.7	11.6												
24	7.4	12.9	21.0	25.5	10.2	13.3	17.5	12.8	5.9	5.7	3.7	5.5	11.7	4.3	3.9	4.1	4.1	4.1	4.2	3.7	4.8	4.4	4.1	3.8	25.5	3.7	8.3												
25	3.8	3.7	4.4	3.8	4.0	3.7	5.0	6.8	7.7	7.2	14.1	8.9	5.4	7.6	7.5	8.1	5.8	6.1	30.7	31.4	18.5	38.8	13.8	6.0	38.8	3.7	10.5												
26	5.4	4.3	11.7	7.7	11.7	37.0	30.6	19.2	10.9	7.7	5.9	5.2	7.3	9.3	10.7	6.8	11.0	5.1	5.1	6.0	4.9	4.7	5.6	5.1	37.0	4.3	10.0												
27	4.0	6.0	4.1	4.6	4.1	3.6	3.7	3.6	3.8	4.1	4.2	4.3	4.7	4.4	4.1	4.5	5.1	4.1	4.0	3.8	3.8	3.5	3.9	5.0	6.0	3.5	4.2												
28	4.3	4.0	6.2	5.4	8.0	8.5	12.4	7.1	9.4	6.7	10.2	4.7	3.7	3.9	6.9	5.0	4.7	4.4	4.4	4.7	4.0	4.9	5.0	4.5	12.4	3.7	6.0												
29	5.4	5.1	7.8	11.7	11.3	5.5	6.3	4.3	4.7	4.1	4.8	4.2	3.8	4.7	4.8	4.6	4.6	4.2	4.1	4.4	5.2	4.1	4.3	4.4	11.7	3.8	5.4												
30	4.2	4.4	3.8	4.2	4.3	4.9	4.5	4.8	4.0	4.2	4.2	4.6	4.3	3.9	4.0	4.0	4.4	4.4	5.0	5.2	3.7	4.0	3.8	3.8	5.2	3.7	4.3												
Max.	18.0	30.3	28.2	50.2	47.5	44.7	30.6	24.4	42.3	34.6	27.3	31.4	30.4	25.8	31.6	47.2	52.7	19.2	41.9	31.5	31.0	77.8	22.3	53.6	77.8														
Min.	2.4	2.4	2.8	3.2	2.9	3.2	2.9	3.0	3.0	3.0	3.3	3.2	3.5	2.5	2.6	2.4	2.7	2.5	2.2	2.7	2.4	2.5	2.2	2.8		2.2													
Avg.	6.7	6.9	7.6	9.9	8.1	9.3	8.5	7.8	8.1	7.3	6.7	6.6	6.6	6.9	7.5	8.9	9.2	6.2	7.8	7.8	7.2	11.3	7.2	9.5			7.9												
Total Hours in Month										720										Data Recovery										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Wind Sigma (RMYoung)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	6.0	5.3	5.3	5.9	8.3	7.8	8.5	13.4	7.0	8.8	12.4	13.6	10.3	6.6	17.1	10.8	6.3	8.4	29.1	57.0	11.3	11.9	4.9	3.7	57.0	3.7	11.7
2	5.6	8.5	10.3	8.3	15.2	12.6	7.2	4.6	6.9	19.3	70.8	68.8	87.1	64.7	16.6	9.2	12.3	33.6	93.1	69.7	24.7	10.7	5.5	15.4	93.1	4.6	28.4
3	20.6	6.4	6.1	4.2	4.1	3.8	4.0	4.3	4.1	5.1	4.6	4.2	5.0	5.8	14.3	11.4	23.5	50.9	26.2	18.9	16.5	26.8	10.1	13.8	50.9	3.8	12.3
4	21.5	13.9	11.3	8.9	10.6	10.7	32.6	9.9	5.2	7.0	7.3	10.0	9.3	5.9	7.0	5.2	5.4	4.7	5.0	4.5	5.1	5.7	7.3	6.9	32.6	4.5	9.2
5	6.2	7.8	8.4	10.9	11.8	6.9	5.6	4.7	5.7	9.0	5.6	4.0	3.8	4.4	4.2	5.0	4.7	4.3	4.1	4.1	4.9	4.1	4.2	4.0	11.8	3.8	5.8
6	4.1	4.5	4.1	4.1	4.1	4.2	3.9	4.0	3.9	3.9	3.8	3.6	3.6	3.7	4.0	4.4	9.2	20.2	27.5	7.4	4.1	10.4	14.4	17.2	27.5	3.6	7.3
7	12.0	18.5	12.0	6.0	12.0	6.6	7.9	12.7	19.3	29.0	11.7	3.6	6.1	3.5	3.9	3.5	3.5	3.6	3.6	4.2	4.4	4.0	3.6	4.1	29.0	3.5	8.3
8	4.5	4.5	14.2	4.3	6.5	7.3	6.5	7.0	8.6	5.2	6.4	5.2	3.6	7.5	6.6	11.4	50.9	23.8	5.6	16.6	3.7	4.8	3.6	4.2	50.9	3.6	9.3
9	32.9	47.0	41.3	14.7	17.9	5.5	9.6	6.0	5.2	4.0	6.0	10.7	5.1	8.6	4.3	5.2	4.8	5.1	4.4	4.3	5.1	4.2	5.2	5.5	47.0	4.0	10.9
10	7.4	5.7	4.4	9.2	7.5	13.8	9.6	11.2	6.1	26.6	6.0	17.5	7.0	9.8	2.6	3.8	6.3	5.6	5.8	5.2	4.8	2.7	3.6	2.6	26.6	2.6	7.7
11	2.9	2.4	2.6	2.5	5.3	2.6	2.5	6.9	6.1	14.6															14.6	2.4	4.8
12																											
13	6.1	3.3	6.2	6.1	5.9	5.6	9.2	4.4	3.7										3.8	6.7	6.1	5.8	4.0	5.5	6.7	3.8	5.3
14	5.6	6.6	3.1	3.0	2.8	2.9	4.3	4.8	2.8	4.4	5.8	4.6	3.4	3.3	2.8	2.7	2.9								9.2	3.3	5.6
15	3.5	3.2	3.0	3.2	3.1	2.7	3.4	3.4	4.2	3.7	3.6	4.1	4.2	5.0	3.3	3.8	3.0	3.7	3.2	3.0	3.0	2.8	3.3	7.4	7.4	2.7	3.9
16	4.3	3.9	2.5	2.6	2.8	3.5	3.7	3.2	3.1	4.1	3.6	4.1	3.1	3.7	4.6	3.5	2.7	2.4	2.9	5.4	4.0	7.4	6.1	7.7	5.0	2.7	3.4
17	6.2	5.7	9.4	4.4	2.9	5.1	8.9	4.5	3.9	3.8	2.9	10.3	7.4	10.2	6.5	8.7	4.7	4.8	4.1	4.4	3.3	6.7	5.5	5.3	10.3	2.9	5.8
18	4.4	3.3	5.4	6.2	4.2	4.1	3.4	4.6	3.5	4.1	3.7	5.0	4.2	5.7	4.3	3.7	4.6	4.8	5.3	3.6	8.1	8.0	7.7	9.1	9.1	3.3	5.0
19	9.9	7.7	8.5	46.2	9.3	8.0	6.0	8.0	6.2	4.9	3.1	3.1	5.8	7.1	4.0	5.0	6.1	4.4	3.9	4.2	6.6	8.0	6.3	5.9	46.2	3.1	7.8
20	7.6	3.2	3.1	3.1	3.1	3.1	8.9	6.0	5.0	4.1	9.2	15.6	5.2	6.5	11.3	7.4	5.7	5.2	3.6	3.4	4.2	9.3	20.5	5.1	20.5	3.1	6.6
21	4.2	5.5	3.4	3.2	3.2	3.3	3.8	3.2	4.0	3.6	4.1	3.1	3.2	4.4	3.3	3.2	3.7	3.3	3.2	3.4	3.9	27.4	5.1	4.7	27.4	3.1	4.7
22	4.9	4.5	6.5	6.6	16.3	25.7	23.8	7.5	7.8	6.5	8.9	12.3	9.0	4.0	3.1	12.2	6.2	14.1	26.9	63.5	24.9	77.6	42.6	55.5	77.6	3.1	19.6
23	23.7	30.2	11.7	5.8	8.3	7.2	5.1	6.9	3.5	5.1	4.6	3.6	3.4	2.6	2.7	2.5	3.2	5.2	4.6	2.9	2.8	3.5	3.6	2.7	30.2	2.5	6.5
24	3.0	3.4	4.2	2.2	2.3	3.3	4.5	3.2	5.2	3.7	5.7	2.9	2.4	1.9	2.6	2.1	2.5	2.4	3.3	3.9	4.2	5.0	4.1	4.9	5.7	1.9	3.5
25	6.4	11.1	5.8	10.5	20.7	25.6	71.4	20.9	10.4	11.5	8.9	16.5	8.0	9.3	13.6	10.9	11.7	3.8	3.6	3.6	3.7	3.5	3.8	3.0	71.4	3.0	12.4
26	3.2	2.9	3.1	3.4	3.1	2.7	2.9	3.1	3.2	3.5	4.5	3.3	3.2	3.8	4.1	4.7	5.2	6.1	6.2	14.3	7.8	18.7	8.0	11.0	18.7	2.7	5.5
27	4.0	10.1	7.0	5.7	10.2	18.0	4.3	4.4	4.6	3.4	6.7	5.4	6.1	3.0	5.1	7.4	10.9	3.3	8.1	4.8	4.0	4.0	3.5	3.7	18.0	3.0	6.2
28	2.7	2.4	3.0	2.1	1.9	1.7	1.4	1.8	2.7	2.7	6.2	4.3	8.8	4.3	2.7	10.2	9.4	2.8	2.3	1.9	2.6	2.4	2.0	2.8	10.2	1.4	3.6
29	2.1	6.5	3.4	2.7	7.5	7.0	6.5	9.3	4.7	5.9	14.7	6.1	8.1	15.0	17.7	14.7	29.6	11.5	13.3	12.5	13.3	10.5	4.0	4.2	29.6	2.1	9.6
30	6.3	3.8	2.3	3.7	3.3	3.2	3.9	3.0	4.1	2.5	4.9	3.3	5.7	3.2	6.2	4.2	3.8	3.4	3.6	4.1	4.8	5.8	4.8	6.2	6.3	2.3	4.2
31																											
Max.	32.9	47.0	41.3	46.2	20.7	25.7	71.4	20.9	19.3	29.0	70.8	68.8	87.1	64.7	17.7	14.7	50.9	50.9	93.1	69.7	24.9	77.6	42.6	55.5	93.1		
Min.	2.1	2.4	2.3	2.1	1.9	1.7	1.4	1.8	2.7	2.5	2.9	2.4	1.9	2.6	2.1	2.5	2.4	2.3	1.9	2.6	2.4	2.0	2.0	2.6		1.4	
Avg.	8.0	8.3	7.3	6.9	7.4	7.4	9.4	6.5	5.5	7.5	8.7	9.2	8.6	7.9	6.6	6.6	9.0	9.1	11.0	12.2	7.0	10.6	7.2	8.0		8.1	

Total Hours in Month 744

Hours Data Available 673

Data Recovery 90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	-17.6	-17.7	-17.8	-18.4	-18.8	-19.8	-19.8	-20.9	-21.4	-22.8	-23.5	-23.8	-24.4	-24.5	-24.0	-24.6	-25.8	-26.0	-26.7	-26.7	-27.6	-27.6	-27.4	-27.3	-27.5	-17.6	-27.6	-23.1
2	-28.3	-28.1	-28.6	-28.6	-27.9	-28.6	-28.7	-28.6	-29.1	-28.3	-27.4	-28.2	-27.9	-27.9	-28.5	-27.8	-27.1	-27.3	-28.0	-28.2	-28.9	-28.9	-28.6	-28.4	-29.2	-27.1	-29.2	-28.3
3	-29.0	-29.0	-29.0	-29.1	-29.7	-29.8	-29.1	-30.4	-31.1	-31.3	-31.1	-31.5	-31.4	-31.2	-30.6	-30.6	-30.2	-29.9	-30.2	-30.3	-30.2	-31.0	-31.0	-30.3	-29.0	-31.5	-30.3	
4	-31.3	-31.3	-31.0	-30.3	-30.4	-30.2	-30.3	-29.6	-29.7	-28.8	-28.9	-27.9	-26.9	-25.5	-24.6	-23.6	-23.2	-21.6	-19.4	-18.9	-18.1	-17.7	-17.6	-18.2	-17.6	-31.3	-25.6	
5	-18.6	-20.1	-22.9	-25.1	-24.7	-24.9	-24.7	-26.1	-27.2	-27.4	-28.2	-27.7	-28.0	-28.1	-27.3	-27.6	-28.1	-27.3	-27.2	-26.6	-26.3	-27.2	-27.3	-26.7	-18.6	-28.2	-26.0	
6	-26.6	-26.2	-26.1	-25.9	-25.7	-25.4	-25.7	-25.6	-26.0	-26.4	-26.6	-26.9	-27.4	-27.7	-28.0	-28.1	-28.8	-29.5	-29.7	-29.7	-30.3	-31.1	-31.6	-32.1	-25.4	-32.1	-27.8	
7	-32.0	-32.3	-31.6	-31.6	-31.8	-31.9	-32.5	-33.1	-33.1	-33.5	-33.0	-33.2	-33.8	-32.4	-31.6	-31.7	-32.1	-32.6	-32.3	-32.2	-32.6	-32.5	-32.5	-32.0	-31.6	-33.8	-32.4	
8	-32.5	-31.8	-32.0	-32.2	-31.5	-30.9	-30.8	-31.1	-31.2	-31.0	-30.7	-30.4	-30.4	-29.5	-29.3	-28.6	-27.8	-27.5	-27.4	-27.5	-26.5	-26.2	-25.6	-25.7	-25.6	-32.5	-29.5	
9	-25.5	-26.4	-25.9	-25.4	-24.8	-25.5	-24.3	-23.8	-21.6	-21.1	-19.9	-19.4	-17.7	-16.8	-16.8	-17.5	-16.1	-15.8	-15.3	-14.9	-14.4	-14.2	-13.5	-13.8	-13.5	-26.4	-19.6	
10	-12.9	-12.6	-13.3	-12.4	-12.1	-12.3	-12.0	-11.2	-10.5	-9.7	-9.0	-8.2	-7.3	-6.4	-5.7	-5.4	-5.1	-4.8	-4.2	-3.9	-3.8	-3.6	-3.4	-3.3	-3.3	-13.3	-8.0	
11	-3.1	-2.9	-2.6	-2.4	-2.3	-2.2	-2.1	-2.1	-1.9	-1.9	-1.9	-1.9	-1.7	-1.6	-1.6	-1.7	-1.6	-1.6	-1.5	-1.5	-1.5	-1.5	-1.5	-1.6	-1.5	-3.1	-1.9	
12	-1.9	-1.8	-1.9	-2.0	-2.0	-2.0	-1.9	-2.0	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9	-1.8	-1.5	-1.5	-1.5	-1.5	-1.5	-1.6	-1.4	-1.4	-1.5	-1.7	-1.4	-2.0	-1.8
13	-2.6	-3.4	-3.8	-3.9	-3.6	-3.4	-3.5	-3.7	-3.9	-3.9	-4.1	-4.3	-4.2	-4.4	-4.8	-4.5	-4.6	-5.2	-6.1	-8.0	-7.5	-7.3	-7.8	-8.1	-2.6	-8.1	-4.9	
14	-9.2	-9.7	-10.2	-11.3	-10.4	-10.6	-10.5	-10.2	-10.0	-9.5	-8.9	-8.7	-8.4	-8.6	-9.1	-9.3	-9.4	-8.7	-8.8	-8.9	-9.3	-9.6	-10.2	-9.5	-8.4	-11.3	-9.5	
15	-9.5	-10.1	-10.7	-11.3	-11.8	-11.3	-10.2	-9.8	-9.9	-10.2	-10.6	-10.5	-10.8	-12.0	-11.5	-11.1	-11.4	-11.8	-12.2	-12.9	-13.9	-15.0	-14.8	-15.6	-9.5	-15.6	-11.6	
16	-14.9	-14.2	-12.9	-13.0	-13.9	-13.7	-12.0	-11.6	-9.6	-9.4	-8.2	-7.3	-7.1	-7.0	-6.2	-5.7	-5.2	-4.8	-4.5	-4.1	-4.1	-4.2	-4.3	-4.3	-4.1	-14.9	-8.4	
17	-4.0	-3.8	-3.9	-4.4	-4.7	-4.6	-4.7	-4.7	-4.2	-4.2	-4.1	-3.8	-3.4								-2.1	-2.0	-2.0	-2.0	-2.0	-4.7	-3.7	
18	-2.4	-2.6	-2.6	-3.1	-3.4	-3.2	-3.1	-3.2	-3.4	-3.4	-3.4	-3.5	-3.3	-3.2	-3.0	-2.6	-2.6	-2.9	-3.4	-4.0	-4.0	-4.4	-4.7	-4.4	-2.4	-4.7	-3.3	
19	-4.6	-4.7	-4.6	-4.1	-3.9	-4.1	-4.3	-4.3	-4.3	-4.6	-5.2	-5.1	-5.2	-6.1	-5.6	-5.4	-5.2	-4.9	-4.8	-4.1	-3.9	-3.8	-4.1	-4.1	-3.8	-6.1	-4.6	
20	-4.1	-3.4	-3.4	-3.4	-3.2	-3.2	-3.5	-4.0	-4.2	-4.1	-4.4	-5.1	-5.4	-4.9	-4.6	-3.4	-4.2	-3.8	-4.8	-4.9	-5.0	-5.4	-5.1	-5.3	-3.2	-5.4	-4.3	
21	-5.8	-6.3	-6.8	-8.0	-9.1	-10.5	-9.9	-10.0	-11.6	-12.5	-12.6	-11.7	-10.9	-10.7	-10.7	-10.9	-10.9	-10.9	-10.8	-10.7	-10.9	-10.8	-10.9	-10.7	-5.8	-12.6	-10.2	
22	-10.7	-10.8	-10.8	-11.4	-11.9	-12.0	-12.2	-12.4	-11.9	-12.0	-12.1	-11.8	-11.3	-10.9	-11.6	-12.1	-12.2	-12.9	-13.0	-13.3	-13.1	-13.0	-13.0	-13.9	-10.7	-13.9	-12.1	
23	-15.0	-15.2	-15.4	-16.0	-16.0	-16.9	-17.1	-17.4	-17.8	-18.0	-18.5	-18.3	-18.7	-19.2	-18.5	-18.4	-19.6	-19.7	-18.9	-19.1	-19.7	-19.9	-20.5	-21.3	-15.0	-21.3	-18.1	
24	-22.1	-23.1	-23.1	-23.3	-23.5	-24.1	-24.8	-25.5	-26.4	-26.7	-27.0	-27.2	-27.2	-26.6	-26.3	-26.2	-26.3	-26.2	-26.6	-26.9	-25.5	-23.4	-24.0	-23.9	-22.1	-27.2	-25.2	
25	-23.6	-24.6	-21.8	-19.5	-15.8	-15.9	-14.9	-12.8	-10.9	-9.8	-7.5	-5.6	-4.3	-3.9	-3.4	-3.0	-2.9	-2.7	-2.1	-2.0	-1.7	-1.6	-1.6	-1.5	-1.5	-24.6	-8.9	
26	-1.3	-1.4	-1.5	-1.6	-1.6	-1.6	-1.6	-1.4	-1.4	-1.3	-1.4	-1.2	-1.1	-0.9	-0.7	-0.9	-0.9	-1.0	-1.4	-1.8	-2.0	-2.0	-2.2	-2.7	-0.7	-2.7	-1.4	
27	-2.6	-2.2	-1.9	-1.7	-1.6	-1.3	-1.0	-0.9	-1.0	-1.1	-1.1	-1.0	-1.2	-1.3	-1.4	-1.2	-0.8	-0.6	-0.9	-0.2	0.7	0.9	0.8	0.9	-2.6	-0.9		
28	0.5	0.3	-0.1	-0.4	-0.3	-0.7	-0.7	-0.8	-0.9	-0.9	-0.9	-0.8	-0.8	-1.0	-0.3	-0.2	-0.4	-0.2	-0.8	-0.7	-0.3	-0.1	-0.1	0.3	0.5	-1.0	-0.4	
29	0.4	0.8	0.9	1.6	1.1	2.3	2.5	1.6	1.2	1.0	1.5	1.9	2.5	2.8	2.6	2.4	1.9	1.9	1.8	1.5	1.1	0.6	0.3	0.3	2.8	0.3	1.5	
30	0.3	0.6	0.9	1.1	1.4	1.6	1.6	1.7	2.2	2.7	3.3	4.1	4.9	5.4	4.5	4.2	4.6	3.3	2.2	2.2	1.8	1.2	1.0	0.8	5.4	0.3	2.4	
31	0.9	1.6	2.2	2.0	2.0	2.0	1.5	1.9	1.2	0.7	1.1	0.4	0.4	0.5	0.8	0.6	0.6	0.7	0.7	0.6	1.6	2.1	2.0	1.8	2.2	0.4	1.3	
Max.	0.9	1.6	2.2	2.0	2.0	2.3	2.5	1.9	2.2	2.7	3.3	4.1	4.9	5.4	4.5	4.2	4.6	3.3	2.2	2.2	1.8	2.1	2.0	1.8	5.4			
Min.	-32.5	-32.3	-32.0	-32.2	-31.8	-31.9	-32.5	-33.1	-33.1	-33.5	-33.0	-33.2	-33.8	-32.4	-31.6	-31.7	-32.1	-32.6	-32.3	-32.2	-32.6	-32.5	-32.5	-32.1	-32.1	-33.8		
Avg.	-12.6	-12.7	-12.6	-12.7	-12.6	-12.7	-12.6	-12.6	-12.6	-12.6	-12.6	-12.5	-12.3	-12.1	-12.2	-12.0	-11.9	-11.9	-11.9	-12.0	-11.6	-11.6	-11.6	-11.7	-11.8	-12.2		

Total Hours in Month

Hours Data Available

737

Data Recovery

99.1%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	1.0	1.1	1.6	1.9	2.3	3.2	3.0	1.5	2.3	2.7	2.1	-0.4	1.4	3.7	3.5	5.1	6.4	6.3	4.9	5.2	5.2	3.1	0.8	0.3	6.4	-0.4	2.8
2	0.1	0.2	0.2	0.5	0.7	0.9	1.3	1.0	0.8	0.7	0.7	0.7	0.8	1.0	1.0	0.9	0.8	0.7	0.6	0.6	0.5	0.4	0.2	0.2	1.3	0.1	0.6
3	0.2	-0.1	-0.3	-0.2	0.0	-0.3	-0.5	-0.6	-0.6	-0.7	-0.8	-0.7	-0.2	0.2	0.4	0.4	0.0	-0.5	-0.6	-0.5	-1.4	-2.3	-2.7	-2.9	0.4	-2.9	-0.6
4	-2.5	-2.5	-3.4	-3.6	-3.5	-3.5	-4.3	-4.5	-4.4	-4.7	-5.0	-5.1	-4.9	-3.8	-2.2	-1.5	-1.7	-2.3	-3.2	-4.1	-2.3	-1.7	-2.2	-2.2	-1.5	-5.1	-3.3
5	-2.0	-1.8	-1.5	-2.1	-2.1	-1.4	-2.1	-1.5	-0.8	-1.7	-2.6	-1.6	-0.8	-0.9	-1.4	-1.6	-1.0	-0.6	-1.2	-0.6	-1.5	-2.2	-2.9	-2.6	-0.6	-2.9	-1.6
6	-2.3	-2.5	-2.4	-2.1	-2.0	-1.9	-1.4	-1.3	-1.0	-1.2	-1.6	-1.3	-0.8	-0.6	-0.2	0.0			-0.9	-1.0	-0.8	-1.1	-0.4	-0.7	0.0	-2.5	-1.2
7	-0.5	-0.3	-0.5	-0.7	-1.5	-2.0	-1.9	-1.7	-1.7	-2.1	-2.1	-2.0	-1.6	-2.4	-2.6	-2.3	-1.8	-1.4	-1.4	-1.7	-2.3	-2.3	-2.4	-2.5	-0.3	-2.6	-1.7
8	-2.8	-3.2	-2.7	-2.7	-3.1	-2.8	-3.0	-3.1	-3.1	-3.2	-2.9	-3.1	-3.1	-2.9	-2.6	-2.5	-2.5	-2.7	-2.8	-2.9	-2.5	-2.1	-2.0	-2.1	-2.0	-3.2	-2.8
9	-2.3	-2.3	-2.0	-2.2	-1.8	-1.9	-1.8	-1.6	-2.2	-1.7	-1.8	-1.9	-1.0	-0.8	-0.7	-0.6	-0.8	-0.9	-1.3	-1.6	-2.0	-1.8	-1.8	-1.7	-0.6	-2.3	-1.6
10	-1.6	-1.4	-1.0	-1.3	-1.4	-1.5	-2.2	-2.4	-2.5	-2.4	-2.1	-2.1	-2.2	-2.3	-2.2	-1.8	-1.9	-2.3	-3.1	-4.7	-5.5	-5.7	-6.2	-6.6	-1.0	-6.6	-2.8
11	-6.8	-5.5	-4.8	-5.0	-5.1	-5.1	-5.1	-4.9	-4.2	-4.0	-3.3	-3.3	-3.1	-2.5	-2.0	-1.7	-1.3	-1.1	-1.4	-1.4	-1.4	-1.5	-1.8	-1.8	-1.1	-6.8	-3.3
12	-1.8	-1.8	-1.6	-1.5	-1.4	-1.3	-1.2	-1.1	-1.1	-1.1	-1.2	-1.2	-0.9	-0.5	0.2	0.3	-0.1	-0.1	-0.5	-1.1	-1.5	-1.6	-1.9	-1.9	0.3	-1.9	-1.1
13	-1.7	-1.3	-1.2	-1.1	-1.0	-0.8	-0.2	-0.4	-0.9	-1.1	-0.5	0.0	0.3	0.4	0.8	1.2	0.8	0.8	0.4	-0.3	-0.6	-0.6	-0.7	-1.0	1.2	-1.7	-0.4
14	-1.4	-1.4	-1.4	-1.4	-1.4	-1.6	-1.6	-1.7	-1.6	-1.6	-1.8	-1.7	-1.5	-1.1	-1.0	-0.9	-1.1	-1.4	-1.5	-1.7	-2.3	-1.6	-1.6	-1.9	-0.9	-2.3	-1.5
15	-2.1	-2.1	-1.9	-1.7	-2.3	-2.6	-3.3	-3.3	-3.1	-3.7	-3.7	-4.6	-3.6	-3.9	-4.3	-6.1	-6.1	-6.2	-6.4	-6.7	-6.2	-6.1	-5.4	-5.9	-1.7	-6.7	-4.2
16	-6.2	-4.3	-4.6	-5.2	-3.3	-3.5	-3.4	-3.4	-3.7	-3.7	-3.5	-3.4	-3.3	-3.2	-3.1	-2.9	-2.8	-2.7	-3.0	-3.0	-2.9	-3.1	-3.3	-3.5	-2.7	-6.2	-3.5
17	-3.4	-3.7	-3.7	-4.2	-4.5	-4.6	-4.7	-4.9	-4.8	-5.0	-4.8	-4.7	-4.9	-4.3	-4.0	-3.9	-3.9	-4.7	-5.0	-5.3	-5.5	-5.6	-5.3	-5.2	-3.4	-5.6	-4.6
18	-5.8	-5.9	-5.8	-5.9	-5.9	-5.9	-5.8	-5.9	-5.8	-5.8	-5.8	-5.7	-5.6	-5.7	-5.8	-5.5	-5.5	-5.6	-5.8	-6.6	-7.2	-7.1	-7.4	-7.6	-5.5	-7.6	-6.1
19	-8.0	-8.6	-9.0	-9.3	-9.7	-10.5	-11.3	-11.7	-12.1	-12.7	-13.8	-15.3	-16.5	-16.2	-15.8	-15.4	-15.8	-16.9	-17.7	-18.8	-19.8	-20.2	-20.6	-20.2	-8.0	-20.6	-14.4
20	-20.4	-19.7	-19.2	-20.0	-20.4	-20.7	-21.5	-21.7	-21.5	-21.4	-21.2	-20.1	-19.2	-18.2	-17.0	-16.4	-16.0	-16.1	-16.5	-17.3	-17.8	-18.0	-18.4	-18.7	-16.0	-21.7	-19.1
21	-18.8	-19.7	-19.7	-20.1	-20.5	-20.9	-21.3	-21.7	-22.3	-22.8	-22.6	-22.3	-21.3	-19.7	-18.9	-18.4	-18.0	-17.7	-18.0	-18.7	-19.2	-19.9	-20.6	-20.5	-17.7	-22.8	-20.1
22	-21.0	-20.9	-21.2	-21.4	-21.4	-20.8	-22.0	-22.7	-23.0	-22.8	-22.8	-21.9	-21.6	-20.7	-19.4	-18.4	-18.2	-17.8	-17.7	-18.5	-19.0	-19.4	-19.6	-19.6	-17.7	-23.0	-20.5
23	-20.4	-20.8	-20.8	-20.9	-20.3	-20.9	-20.7	-21.7	-22.0	-22.5	-22.5	-21.7	-20.3	-19.5	-18.8	-18.0	-17.6	-17.7	-18.5	-19.2	-19.7	-20.2	-21.3	-20.8	-17.6	-22.5	-20.3
24	-21.4	-21.1	-21.1	-20.6	-21.1	-21.3	-21.7	-22.0	-22.2	-23.1	-22.2	-21.6	-21.1	-20.4	-20.5	-20.5	-20.4	-20.6	-21.2	-21.9	-22.2	-22.5	-22.9	-22.6	-20.4	-23.1	-21.5
25	-22.6	-22.2	-22.5	-22.4	-22.6	-22.5	-22.4	-22.7	-22.9	-22.9	-22.4	-21.3	-19.9	-18.4	-17.1	-15.9	-15.7	-15.7	-17.1	-17.5	-17.2	-16.5	-15.9	-15.1	-15.1	-22.9	-19.6
26	-14.0	-12.6	-11.5	-9.8	-10.1	-10.4	-10.2	-10.0	-8.7	-8.8	-9.4	-10.5	-10.2	-9.5	-9.2	-8.4	-8.0	-8.4	-9.4	-10.1	-10.9	-11.7	-12.1	-12.3	-8.0	-14.0	-10.2
27	-13.2	-13.6	-14.1	-14.0	-14.5	-14.4	-14.5	-14.2	-14.0	-14.4	-13.4	-13.1	-13.0	-12.2	-11.3	-10.9	-10.8	-10.6	-11.2	-11.0	-11.3	-10.6	-10.2	-10.6	-10.2	-14.5	-12.5
28	-11.1	-11.4	-11.8	-12.4	-13.0	-13.5	-13.6	-14.0	-15.0	-16.1	-17.0	-17.1	-17.2	-16.9	-16.6	-16.9	-17.8	-18.4	-19.3	-20.4	-21.6	-22.0	-22.2	-22.5	-11.1	-22.5	-16.6
Max.	1.0	1.1	1.6	1.9	2.3	3.2	3.0	1.5	2.3	2.7	2.1	0.7	1.4	3.7	3.5	5.1	6.4	6.3	4.9	5.2	5.2	3.1	0.8	0.3	6.4		
Min.	-22.6	-22.2	-22.5	-22.4	-22.6	-22.5	-22.4	-22.7	-23.0	-23.1	-22.8	-22.3	-21.6	-20.7	-20.5	-20.5	-20.4	-20.6	-21.2	-21.9	-22.2	-22.5	-22.9	-22.6		-23.1	
Avg.	-7.6	-7.5	-7.4	-7.5	-7.5	-7.6	-7.8	-7.9	-7.9	-8.1	-8.1	-8.1	-7.7	-7.2	-6.8	-6.5	-6.7	-6.8	-7.1	-7.5	-7.8	-8.0	-8.2	-8.3			-7.6

Total Hours in Month

Hours Data Available

670

Data Recovery

99.7%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	-23.3	-23.6	-23.7	-23.5	-23.8	-24.8	-25.2	-25.4	-25.5	-26.0	-25.8	-24.7	-23.7	-22.4	-21.1	-20.1	-19.4	-19.2	-19.1	-19.6	-20.3	-21.0	-21.8	-21.8	-19.1	-26.0	-22.7
2	-22.1	-21.8	-22.1	-22.2	-22.6	-22.5	-22.7	-23.2	-23.3	-23.3	-23.5	-22.9	-21.6	-20.5	-19.4	-18.2	-17.7	-17.6	-17.8	-18.1	-18.3	-18.6	-19.0	-19.3	-17.6	-23.5	-20.7
3	-19.7	-20.1	-20.5	-20.2	-20.9	-20.9	-21.0	-21.2	-21.7	-21.8	-21.4	-20.5	-19.2	-17.8	-16.6	-15.5	-14.8	-14.5	-14.8	-15.2	-15.6	-16.0	-16.1	-16.8	-14.5	-21.8	-18.4
4	-17.2	-17.6	-16.9	-16.5	-16.9	-17.5	-17.1	-17.8	-17.9	-18.0	-17.3	-17.0	-16.8	-16.3	-15.8	-15.5	-15.2	-15.3	-15.8	-16.9	-18.2	-18.8	-19.3	-20.0	-15.2	-20.0	-17.2
5	-20.6	-21.4	-22.3	-23.2	-23.8	-24.6	-25.0	-25.6	-26.3	-26.2	-25.8	-25.2	-24.6	-23.9	-23.1	-22.5	-22.3	-22.4	-22.7	-23.5	-24.3	-25.1	-25.5	-25.9	-20.6	-26.3	-24.0
6	-26.5	-26.9	-27.3	-27.6	-27.9	-28.1	-28.5	-28.6	-28.8	-28.9	-28.4	-27.5	-26.9	-26.1	-25.3	-24.9	-24.4	-24.3	-24.5	-25.0	-25.3	-25.4	-25.5	-25.8	-24.3	-28.9	-26.6
7	-26.0	-26.1	-26.0	-26.1	-26.4	-26.5	-26.7	-26.7	-26.6	-26.5	-26.0	-24.9	-24.1	-23.1	-22.3	-21.4	-21.0	-20.7	-21.0	-21.8	-22.8	-23.4	-24.2	-24.9	-20.7	-26.7	-24.4
8	-25.5	-26.0	-26.5	-26.9	-26.9	-27.1	-27.4	-27.5	-27.5	-27.6	-27.4	-26.9	-26.1	-24.9	-23.8	-22.9	-22.3	-22.0	-22.1	-22.6	-22.9	-22.9	-22.9	-23.2	-22.0	-27.6	-25.1
9	-23.4	-23.7	-23.9	-24.2	-24.2	-24.2	-24.2	-24.0	-23.9	-23.3	-23.0	-23.0	-22.3	-21.5	-20.7	-19.9	-19.3	-19.3	-19.7	-20.8	-21.8	-22.3	-22.0	-21.5	-19.3	-24.2	-22.3
10	-21.3	-21.0	-20.8	-20.7	-20.5	-20.8	-20.9	-20.8	-20.5	-21.1	-21.4	-21.3	-19.9	-19.1	-17.7	-17.3	-16.7	-16.4	-16.9	-17.9	-19.4	-20.4	-20.6	-20.5	-16.4	-21.4	-19.7
11	-20.9	-21.7	-21.7	-22.3	-22.8	-23.4	-23.8	-24.4	-24.9	-25.1	-24.8	-24.1	-23.1	-22.1	-21.3	-20.4	-19.8	-19.4	-19.2	-19.4	-19.6	-19.5	-19.8	-20.2	-19.2	-25.1	-21.8
12	-20.7	-20.9	-21.2	-21.2	-21.3	-21.6	-21.8	-21.8	-22.2	-22.0	-21.3	-20.7	-19.8	-18.4	-17.3	-16.6	-16.4	-16.2	-16.3	-16.6	-16.9	-17.5	-18.1	-18.4	-16.2	-22.2	-19.4
13	-18.9	-19.3	-20.0	-20.5	-20.7	-20.6	-21.2	-21.5	-21.9	-22.5	-22.0	-21.4	-20.7	-20.0	-19.3	-18.8	-18.9	-19.1	-19.4	-20.0	-20.9	-21.1	-21.3	-21.8	-18.8	-22.5	-20.5
14	-22.9	-23.6	-23.9	-24.2	-24.3	-24.4	-24.7	-24.9	-25.3	-24.9	-24.2	-23.3	-22.6	-22.0	-21.2	-20.8	-20.4	-20.3	-20.6	-21.1	-21.7	-22.3	-22.8	-23.1	-20.3	-25.3	-22.9
15	-23.5	-24.1	-24.7	-25.3	-25.9	-26.7	-27.3	-27.8	-27.6	-27.2	-26.3	-25.0	-23.8	-22.6	-21.6	-20.8	-19.9	-19.2	-19.1	-19.9	-21.0	-21.7	-21.8	-22.2	-19.1	-27.8	-23.5
16	-23.1	-23.4	-23.5	-23.5	-23.5	-23.8	-24.0	-24.3	-24.5	-24.0	-22.9	-21.7	-20.3	-18.9	-17.6	-16.6	-16.2	-16.3	-16.8	-17.9	-19.5	-20.7	-21.0	-20.9	-16.2	-24.5	-21.0
17	-21.1	-21.0	-21.1	-21.4	-21.5	-21.5	-21.6	-21.8	-22.0	-22.3	-21.3	-20.3	-19.1	-18.3	-17.1	-15.8	-14.6	-13.8	-13.9	-15.3	-16.8	-17.4	-17.1	-16.5	-13.8	-22.3	-18.8
18	-16.8	-16.4	-16.1	-16.7	-17.5	-17.8	-17.3	-17.9	-17.1	-17.3	-17.5	-17.0	-15.9	-15.6	-14.8	-14.5	-13.9	-13.5	-13.5	-14.8	-16.4	-17.1	-17.5	-18.1	-13.5	-18.1	-16.3
19	-17.9	-17.5	-18.2	-18.4	-18.2	-18.5	-18.4	-18.7	-18.4	-17.9	-18.0	-17.2	-15.9	-14.8	-13.7	-12.7	-11.7	-11.0	-11.1	-11.7	-11.8	-11.9	-12.0	-12.1	-11.0	-18.7	-15.3
20	-11.9	-11.9	-12.6	-13.2	-13.6	-13.2	-13.4	-13.7	-12.7	-11.5	-10.5	-9.6	-9.3	-9.0	-7.7	-7.2	-6.9	-6.7	-6.5	-6.6	-6.7	-6.3	-5.9	-5.8	-5.8	-13.7	-9.7
21	-6.2	-6.2	-6.0	-5.9	-6.0	-6.1	-6.1	-5.9	-5.7	-5.5	-5.3	-4.9	-4.2	-3.2	-2.2	-1.3	-0.4	-0.6	-0.9	-1.0	-1.1	-1.2	-1.3	-1.5	-5.5	-15.0	-8.6
22	-15.7	-16.0	-16.5	-16.8	-17.5	-18.6	-19.8	-19.6	-20.0	-20.1	-19.8	-18.2	-17.1	-16.0	-14.7	-13.7	-13.2	-13.1	-13.5	-14.0	-14.9	-16.0	-17.0	-17.2	-13.1	-20.1	-16.6
23	-17.5	-18.1	-18.7	-19.3	-19.5	-19.1	-20.0	-20.5	-20.6	-19.9	-20.4	-19.6	-18.7	-18.0	-17.4	-16.7	-15.8	-15.4	-15.6	-16.2	-17.5	-19.1	-19.4	-19.5	-15.4	-20.6	-18.4
24	-20.0	-21.4	-21.5	-22.3	-22.5	-23.1	-23.3	-23.4	-23.5	-23.0	-22.3	-21.5	-20.7	-19.6	-18.6	-17.8	-17.3	-17.3	-17.5	-18.0	-18.1	-17.9	-17.6	-17.6	-17.3	-23.5	-20.2
25	-16.8	-16.6	-16.7	-16.4	-16.6	-16.7	-17.1	-17.2	-17.5	-17.3	-16.7	-16.1	-15.4	-14.1	-13.3	-11.6	-11.0	-11.3	-10.9	-10.9	-10.5	-10.5	-10.9	-11.1	-10.5	-17.5	-14.3
26	-9.9	-10.6	-10.0	-8.8	-8.1	-7.8	-7.4	-7.4	-8.1	-9.5	-10.5	-11.1	-11.6	-11.8	-11.7	-11.7	-11.7	-11.9	-11.7	-11.8	-12.2	-12.6	-12.6	-12.4	-7.4	-12.6	-10.5
27	-12.1	-11.0	-12.0	-13.3	-13.1	-13.3	-13.1	-13.7	-13.6	-12.9	-12.2	-12.3	-11.4	-11.2	-10.9	-10.2	-10.3	-10.4	-10.3	-11.1	-11.7	-12.6	-13.1	-14.4	-10.2	-14.4	-12.1
28	-14.7	-15.3	-15.7	-15.5	-15.3	-14.6	-15.4	-16.1	-16.2	-16.3	-15.4	-14.5	-13.3	-12.1	-11.1	-10.4	-9.9	-9.7	-9.9	-10.7	-11.2	-11.8	-12.2	-12.7	-9.7	-16.3	-13.3
29	-13.4	-13.5	-13.1	-12.4	-12.5	-12.7	-13.6	-13.4	-14.3	-13.8	-13.2	-12.1	-10.9	-9.4	-8.2	-7.6	-7.0	-6.7	-7.1	-7.8	-8.4	-9.2	-10.2	-10.0	-6.7	-14.3	-10.8
30	-11.0	-9.8	-9.3	-10.0	-9.9	-10.8	-10.9	-11.9	-10.8	-10.1	-9.3	-8.3	-7.5	-6.8	-5.8	-4.3	-3.7	-3.4	-3.1	-3.1	-2.9	-2.6	-2.1	-2.3	-2.1	-11.9	-7.1
31	-2.6	-2.6	-3.3	-3.7	-3.3	-2.7	-2.1	-1.8	-1.9	-1.7	-1.7	-1.6	-0.7	-0.2	-0.1	-0.3	-0.1	-0.3	-0.4	-0.8	-1.8	-2.7	-2.9	-3.1	-0.1	-3.7	-1.8
Max.	-2.6	-2.6	-3.3	-3.7	-3.3	-2.7	-2.1	-1.8	-1.9	-1.7	-1.7	-1.6	-0.7	-0.2	-0.1	-0.3	-0.1	-0.3	-0.4	-0.8	-1.8	-2.6	-2.1	-2.3	-0.1		
Min.	-26.5	-26.9	-27.3	-27.6	-27.9	-28.1	-28.5	-28.6	-28.8	-28.9	-28.4	-27.5	-26.9	-26.1	-25.3	-24.9	-24.4	-24.3	-24.5	-25.0	-25.3	-25.4	-25.5	-25.9	-28.9		
Avg.	-18.2	-18.4	-18.6	-18.8	-18.9	-19.2	-19.4	-19.6	-19.7	-19.6	-19.3	-18.7	-17.8	-16.9	-16.1	-15.3	-14.9	-14.7	-14.9	-15.5	-16.2	-16.7	-16.9	-17.2			-17.6

Total Hours in Month

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	-2.9	-2.5	-3.0	-3.2	-3.9	-3.7	-3.7	-4.7	-5.1	-4.7	-3.8	-3.0	-2.8	-1.8	-1.0	-0.4	0.6	1.1	0.7	0.3	-0.3	-1.1	-2.4	-2.0	1.1	-5.1	-2.2
2	-1.9	-2.5	-2.5	-2.8	-2.9	-3.3	-3.6	-4.3	-4.3	-3.6	-2.8	-1.5	-1.0	-0.6	-0.6	-0.6	-0.7	-0.9	-1.1	-1.4	-1.7	-1.8	-2.0	-2.2	-0.6	-4.3	-2.1
3	-2.0	-2.0	-2.0	-1.8	-1.8	-1.9	-2.1	-2.1	-2.1	-2.0	-2.0	-1.6	-1.2	-0.9	-0.8	-0.4	-0.5	-0.7	-0.8	-1.2	-1.5	-1.5	-1.5	-2.2	-0.4	-2.2	-1.5
4	-2.0	-2.3	-2.5	-3.2	-3.3	-3.7	-3.5	-3.5	-2.9	-2.2	-1.6	-1.1	-0.6	-0.2	0.0	-0.3	-0.3	-0.3	-0.6	-1.1	-1.1	-1.2	-0.9	-0.9	0.0	-3.7	-1.6
5	-0.1	0.0	-0.1	-0.1	-0.1	-0.4	-0.5	0.0	0.4	1.1	2.1	2.3	2.5	3.4	3.5	3.9	4.7	4.4	2.1	2.0	1.2	1.4	1.3	1.1	4.7	-0.5	1.5
6	1.0	0.5	0.8	1.3	1.0	1.5	1.4	1.3	1.2	1.7	1.9	2.8	3.8	4.1	4.9	5.4	5.7	4.9	3.3	1.4	0.6	1.4	2.1	2.8	5.7	0.5	2.4
7	2.9	2.9	2.0	0.7	0.1	-0.6	-1.0	-0.8	-0.6	-0.5	-0.3	0.1	0.1	0.1	0.5	1.2	1.7	1.6	1.5	0.9	0.4	0.2	0.9	1.0	2.9	-1.0	0.6
8	1.1	1.1	0.8	1.0	1.4	1.8	1.8	2.4	2.6	2.7	3.5	4.8	5.4	5.5	5.4	5.4	5.5	4.9	4.3	4.5	3.7	2.8	2.7	1.1	5.5	0.8	3.2
9	0.7	0.4	0.2	0.0	0.2	0.3	0.3	-0.2	-0.2	-0.4	-0.5	-0.4	-0.3	-0.1	0.2	0.7	0.6	0.4	0.2	0.5	0.5	0.2	-0.2	-0.5	0.7	-0.5	0.1
10	-0.5	-0.7	-0.8	-1.0	-1.1	-1.3	-1.4	-1.4	-1.5	-1.5	-1.4	-1.4	-0.6	-0.3	-0.1	-0.1	0.2	0.1	0.2	0.0	-0.4	-1.0	-1.6	-1.5	0.2	-1.6	-0.8
11	-1.5	-2.3	-2.7	-2.8	-2.5	-2.4	-2.7	-3.0	-2.4	-1.8	-1.7	-1.0	-0.1	0.1	0.4	0.5	0.2	0.2	-0.2	-0.8	-1.7	-2.5	-2.9	-2.8	0.5	-3.0	-1.5
12	-3.0	-3.4	-3.3	-3.4	-3.9	-3.8	-3.5	-3.7	-3.4	-2.9	-2.6	-2.2	-1.1	-0.3	0.5	0.9	1.7	1.8	2.3	1.9	1.4	0.4	-0.4	-1.2	2.3	-3.9	-1.3
13	-2.3	-3.1	-3.2	-2.9	-3.3	-3.7	-3.9	-4.2	-4.5	-4.6	-3.4	-2.6	-1.8	-0.6	0.2	1.1	1.8	2.4	2.0	0.5	-0.2	-0.8	-1.1	-1.3	2.4	-4.6	-1.7
14	-1.4	-1.6	-2.2	-1.8	-2.4	-2.0	-2.3	-2.7	-2.6	-2.5	-2.2	-1.8	-1.3	-0.2	0.7	0.8	0.7	0.9	0.9	0.3	-0.2	-1.4	-1.6	-2.2	0.9	-2.7	-1.2
15	-2.1	-2.3	-2.0	-2.1	-1.9	-2.2	-2.4	-2.1	-2.0	-1.0	-0.9	0.3	0.2	0.8	1.1	0.9	1.6	1.8	1.2	0.5	0.4	-0.4	-0.8	-0.6	1.8	-2.4	-0.6
16	-0.6	-0.9	-1.0	-1.7	-1.9	-2.2	-1.7	-1.9	-1.7	-0.9	0.5	1.8	1.6	1.6	0.9	-0.7	-1.4	-1.7	-1.8	-2.2	-3.0	-3.7	-4.5	-4.3	1.8	-4.5	-1.3
17	-4.9	-4.9	-5.0	-4.3	-2.8	-2.6	-1.4	-1.3	-1.1	-1.0	-1.3	-1.5	-1.4	-1.3	-1.3	-1.3	-1.3	-1.1	-0.9	-0.9	-0.8	-0.7	-0.6	-0.6	-0.6	-5.0	-1.8
18	-0.6	-0.7	-0.6	-0.5	-0.5	-0.2	0.0	-0.2	-0.1	0.1	0.4	0.8	1.3	1.5	1.3	0.8	0.7	-0.7	-1.9	-2.2	-2.6	-2.8	-3.4	-3.9	1.5	-3.9	-0.6
19	-4.2	-3.6	-2.5	-1.8	-1.7	-0.9	-0.5	-0.5	-0.4	-0.1	0.1	0.4	0.4	0.1	-0.3	-0.8	-1.2	-1.3	-1.5	-1.9	-2.0	-1.9	-1.6	-1.3	0.4	-4.2	-1.2
20	-1.2	-1.1	-1.2	-1.2	-0.9	-0.7	-1.0	-0.3	0.2	0.1	0.8	2.0	2.2	2.6	3.1	2.9	2.8	2.4	1.5	1.5	1.2	1.0	0.9	0.9	3.1	-1.2	0.8
21	1.0	1.1	0.8	1.3	1.3	1.4	1.6	1.0	1.3	2.0	2.6	2.8	3.0	3.6	3.8	3.3	3.1	2.4	2.3	1.7	1.2	1.3	1.6	1.9	3.8	0.8	2.0
22	1.6	1.6	1.8	1.6	2.1	2.4	2.6	2.7	2.7	2.4	2.4	3.6	4.3	4.5	4.1	4.0	4.3	3.6	3.1	2.4	2.4	2.3	2.3	1.7	4.5	1.6	2.8
23	2.0	2.1	1.9	2.6	2.2	2.5	2.5	2.7	3.0	3.5	5.2	5.9	6.5	6.1	5.1	5.7	5.0	3.8	4.7	2.8	3.1	3.5	2.2	1.5	6.5	1.5	3.6
24	1.1	0.8	0.9	1.1	1.3	1.6	1.4	1.4	1.4	2.4	3.0	4.3	5.3	5.1	4.2	4.2	4.9	5.2	5.2	4.3	2.9	2.2	1.4	0.9	5.3	0.8	2.8
25	0.8	0.9	1.1	0.8	1.1	1.2	1.1	0.9	1.3	1.9	2.6	3.6	3.3	2.1	2.7	3.4	3.2	3.6	3.2	2.6	2.2	1.8	2.1	1.9	3.6	0.8	2.1
26	2.0	1.7	1.6	1.8	1.5	1.9	2.0	1.2	0.8	1.8	3.1	5.6	7.1	8.0	9.1	9.2	9.0	8.8	8.8	8.5	8.2	6.2	4.9	4.7	9.2	0.8	4.9
27	4.1	4.0	4.9	4.7	3.1	2.6	2.5	2.6	3.5	3.6	4.1	5.0	6.0	6.7	6.9	6.7	7.2	7.0	5.3	3.8	2.5	1.4	0.4	-0.4	7.2	-0.4	4.1
28	-0.8	-0.6	-1.0	-1.4	-2.1	-2.6	-3.1	-2.9	-2.6	-2.6	-2.3	-1.1	1.0	2.9	4.0	4.5	4.9	4.4	3.4	3.1	1.8	0.4	-0.5	-1.1	4.9	-3.1	0.2
29	-1.4	-1.0	-0.7	-0.7	-0.9	-1.0	-1.0	-0.6	0.7	2.3	3.1	3.4	3.4	4.8	5.3	5.1	5.1	5.6	5.7	5.2	4.1	3.0	2.9	2.2	5.7	-1.4	2.3
30	0.9	0.1	-0.1	0.4	0.6	1.0	0.9	0.3	0.6	1.9	4.5	5.6	6.3	6.8	7.2	7.5	7.8	7.9	7.4	6.7	5.5	4.2	3.5	3.4	7.9	-0.1	3.8
Max.	4.1	4.0	4.9	4.7	3.1	2.6	2.6	2.7	3.5	3.6	5.2	5.9	7.1	8.0	9.1	9.2	9.0	8.8	8.8	8.5	8.2	6.2	4.9	4.7	9.2		
Min.	-4.9	-4.9	-5.0	-4.3	-3.9	-3.8	-3.9	-4.7	-5.1	-4.7	-3.8	-3.0	-2.8	-1.8	-1.3	-1.3	-1.4	-1.7	-1.9	-2.2	-3.0	-3.7	-4.5	-4.3		-5.1	
Avg.	-0.5	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.8	-0.6	-0.2	0.4	1.2	1.7	2.1	2.4	2.4	2.6	2.4	2.0	1.5	0.9	0.4	0.1	-0.1			0.6

Total Hours in Month

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.		
1	3.4	3.8	3.5	2.5	2.4	1.9	1.6	2.1	2.2	3.1	3.7	4.2	4.7	5.3				4.1	5.0	4.1	3.4	3.2	2.9	2.4	5.3	1.6	3.3		
2	2.4	2.0	2.4	2.2	2.3	1.0	1.2	0.8	1.7	2.1	3.1	3.4	4.0	3.1	2.9	5.1	5.1	3.7	3.3	2.4	1.3	0.9	0.3	-0.3	5.1	-0.3	2.3		
3	-0.5	-0.9	-1.1	-1.4	-1.1	-1.1	-0.9	-0.9	-0.2	0.6	2.0	3.3	4.4	5.6	6.4	7.4	7.8	6.1	4.8	5.2	5.0	3.7	4.0	3.3	7.8	-1.4	2.6		
4	2.2	1.8	1.9	2.4	2.4	1.5	1.7	1.9	2.1	3.2	3.7	3.9	4.8	5.6	6.5	7.0	7.0	6.8	6.5	4.8	4.3	4.0	3.5	2.8	7.0	1.5	3.8		
5	2.1	0.7	0.7	0.0	-0.4	-1.5	-1.6	-1.2	-1.0	-0.1	0.4	1.0	1.7	3.2	4.4	5.1	5.9	6.8	6.5	6.2	5.0	4.4	3.8	3.8	6.8	-1.6	2.3		
6	3.7	3.3	2.8	1.7	0.9	0.6	0.2	0.7	1.1	1.5	2.5	3.1	3.3	3.7	3.8	3.7	4.0	3.8	3.2	2.7	2.2	1.7	1.2	0.7	4.0	0.2	2.3		
7	0.1	-0.1	-0.1	-0.7	-1.5	-1.9	-1.9	-1.4	0.1	1.1	1.6	2.0	2.5	3.2	3.9	4.7	4.3	4.3	4.2	3.3	2.9	2.5	2.1	1.9	4.7	-1.9	1.5		
8	1.7	1.2	0.8	0.3	0.3	0.0	-0.4	-0.4	-0.1	0.3	0.7	1.5	2.2	2.9	4.2	5.1	4.9	4.7	4.6	4.4	3.8	3.0	2.2	1.1	5.1	-0.4	2.0		
9	0.3	0.1	-0.2	-0.5	-0.8	-0.5	-0.5	-0.4	-0.4	-0.3	-0.3	-0.1	0.0	0.5	1.1	1.9	2.7	3.2	3.3	3.3	2.7	1.8	0.7	0.1	3.3	-0.8	0.7		
10	0.0	-0.1	-0.5	-0.7	-0.1	0.1	0.4	0.4	0.9	1.4	2.2	2.9	3.8	4.5	4.9	5.1	5.3	4.9	4.5	4.0	3.7	2.6	1.7	1.2	5.3	-0.7	2.2		
11	0.0	0.2	0.2	0.0	-0.5	-0.4	-0.6	0.1	1.4	2.6	3.4	4.2	4.9	5.5	5.8	6.1	6.0	5.6	5.2	4.3	3.4	1.9	0.6	0.0	6.1	-0.6	2.5		
12	-0.3	-0.6	-0.7	-1.2	-1.6	-1.8	-1.3	-0.2	0.9	2.1	3.2	4.0	4.4	5.0	5.1	5.2	5.2	4.4	4.1	3.6	2.7	1.8	1.1	0.9	5.2	-1.8	1.9		
13	0.8	0.8	0.5	0.6	0.6	0.5	0.3	0.1	0.1	0.5	1.0	2.0	2.1	2.1	2.5	2.8	3.0	2.9	3.1	3.0	2.8	2.5	2.3	2.2	3.1	0.1	1.6		
14	2.7	2.6	2.7	2.6	2.8	3.1	3.1	3.1	4.0	5.3	6.8	7.1	7.6	6.5	5.2	4.6	3.8	3.5	3.9	3.5	2.9	2.3	1.5	1.1	7.6	1.1	3.8		
15	0.5	0.6	1.2	0.8	0.5	0.9	0.8	1.4	2.0	3.0	3.5	4.8	5.3	5.9	5.5	5.7	6.4	6.7	6.8	6.7	7.2	5.9	4.4	3.4	7.2	0.5	3.7		
16	3.0	2.9	3.5	2.9	2.8	2.8	3.1	4.1	5.2	6.5	8.2	10.4	11.5	12.2	12.1	11.5	11.0	10.3	9.6	9.2	6.6	4.3	3.1	2.4	12.2	2.4	6.6		
17	2.2	2.0	1.8	1.7	1.6	1.6	1.6	1.7	2.2	2.8	5.1	6.5	7.1	7.3	7.0	7.3	7.1	6.6	5.9	5.0	4.1	3.0	2.2	1.7	7.3	1.6	4.0		
18	1.0	1.2	1.2	1.1	1.1	0.8	1.2	1.8	2.6	3.8	4.6	5.5	6.2	6.9	7.3	7.9	7.9	8.5	8.3	7.9	7.2	6.8	5.9	5.1	8.5	0.8	4.7		
19	4.5	4.0	4.1	4.1	3.4	2.8	3.6	4.9	6.1	6.5	7.0	7.4	8.3	9.1	9.1	9.9	10.2	10.1	9.6	8.9	7.6	6.3	5.7	4.6	10.2	2.8	6.6		
20	4.2	4.5	4.1	3.8	3.7	3.0	2.7	2.8	3.8	5.1	5.8	6.1	6.6	7.0	7.2	7.7	8.3	8.6	8.4	8.2	7.7	6.4	4.1	2.8	8.6	2.7	5.5		
21	2.6	3.4	3.2	3.1	2.9	2.8	3.2	3.7	4.7	5.7	6.6	7.8	8.7	9.4	10.1	10.6	10.2	10.1	9.3	8.3	7.1	6.0	5.2	4.7	10.6	2.6	6.2		
22	4.4	4.6	4.6	4.3	4.4	4.6	4.5	5.0	5.0	5.9	4.1	4.8	5.9	7.5	7.1	7.2	8.4	9.7	10.2	7.5	5.8	5.2	5.1	4.9	10.2	4.1	5.8		
23	4.7	4.6	5.3	5.5	5.5	5.4	5.8	6.3	7.0	7.8	8.4	8.5	7.6	7.6	7.6	7.7	7.3	7.0	5.8	5.1	4.5	4.4	3.8	3.4	8.5	3.4	6.1		
24	2.7	2.3	2.1	2.0	1.9	2.0	2.2	2.4	2.9	4.2	4.7	5.4	5.9	6.7	7.0	7.6	6.3	6.7	6.9	8.4	8.2	7.5	6.9	6.3	8.4	1.9	5.0		
25	5.8	6.1	5.9	6.2	6.4	6.5	6.5	6.9	6.8	6.7	6.8	6.6	6.0	6.0	6.2	6.2	6.4	6.8	7.3	7.4	7.4	7.1	6.9	6.4	7.4	5.8	6.6		
26	6.3	6.3	6.6	5.2	4.1	4.3	4.1	5.1	4.9	4.5	4.9	5.8	6.2	5.9	6.2	6.0	4.8	4.9	4.8	4.4	4.3	4.2	3.7	3.1	6.6	3.1	5.0		
27	2.7	2.8	2.4	2.4	2.4	2.2	2.2	2.8	3.7	4.5	5.8	6.6	7.1	7.9	7.3	8.2	7.8	7.7	7.5	6.8	5.8	4.8	3.3	2.2	8.2	2.2	4.9		
28	1.8	1.7	1.5	1.5	1.5	1.2	1.4	2.6	3.4	4.3	5.3	6.2	6.8	6.7	8.3	8.1	7.2	6.6	5.3	5.3	4.6	3.6	2.7	1.5	8.3	1.2	4.1		
29	1.4	1.0	1.5	1.3	1.7	0.0	0.5	2.0	3.5	5.1	6.6	7.9	8.5	8.7	8.9	9.1	8.9	8.6	9.0	8.3	7.5	6.6	4.5	4.0	9.1	0.0	5.2		
30	4.1	4.6	4.5	3.7	3.4	3.3	3.5	4.1	4.7	5.7	7.1	7.7	8.3	8.9	9.3	9.9	10.1	9.5	8.0	6.7	5.9	5.4	4.4	3.9	10.1	3.3	6.1		
31	3.3	3.1	3.3	4.3	4.6	4.5	4.3	4.7	5.0	4.6	5.3	7.7	7.0	6.2	6.3	6.7	7.3	7.6	7.4	6.9	5.9	5.3	4.9	4.4	7.7	3.1	5.4		
Max.	6.3	6.3	6.6	6.2	6.4	6.5	6.5	6.9	7.0	7.8	8.4	10.4	11.5	12.2	12.1	11.5	11.0	10.3	10.2	9.2	8.2	7.5	6.9	6.4	12.2				
Min.	-0.5	-0.9	-1.1	-1.4	-1.6	-1.9	-1.9	-1.4	-1.0	-0.3	-0.3	-0.1	0.0	0.5	1.1	1.9	2.7	2.9	3.1	2.4	1.3	0.9	0.3	-0.3		-1.9			
Avg.	2.4	2.3	2.2	2.0	1.8	1.6	1.7	2.2	2.8	3.5	4.3	5.1	5.6	6.0	6.3	6.7	6.7	6.5	6.2	5.7	5.0	4.2	3.4	2.8			4.0		
Total Hours in Month										Hours Data Available										Data Recovery									
										744										99.6%									

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.		
1	4.5	4.4	4.1	3.9	3.7	3.7	3.6	4.1	4.8	6.4	6.5	7.1	6.8	7.0	6.3	6.8	7.1	6.3	5.5	5.1	5.0	4.8	4.1	3.7	7.1	3.6	5.2		
2	3.6	3.4	3.3	3.3	3.1	2.9	3.1	3.3	3.6	3.8	4.3	5.1	6.0	6.9	7.5	8.3	8.6	8.7	8.9	8.8	8.5	7.6	6.3	5.3	8.9	2.9	5.6		
3	4.6	4.5	4.9	4.6	4.5	4.1	3.9	4.4	4.9	5.2	6.1	6.8	7.6	8.4	9.5	9.6	10.6	11.1	10.4	10.9	10.0	10.0	9.2	7.5	11.1	3.9	7.2		
4	6.0	5.0	4.3	4.4	5.1	5.1	5.9	6.4	6.9	6.8	7.3	7.5	8.0	8.8	9.5	10.5	10.1	10.6	10.1	6.8	5.7	5.1	4.7	4.2	10.6	4.2	6.9		
5	4.0	3.8	3.7	3.6	3.5	3.5	3.7	4.2	4.3	4.4	5.1	5.8	6.9	7.4	7.0	6.8	7.3	7.5	6.8	6.1	6.0	5.7	5.0	4.6	7.5	3.5	5.3		
6	4.5	4.4	4.4	4.5	4.3	4.5	4.3	4.7	5.7	7.5	9.4	10.6	11.8	11.4	11.6	10.7	10.3	9.6	9.4	8.8	7.1	5.4	4.5	3.6	11.8	3.6	7.2		
7	4.0	5.2	5.2	3.9	3.9	5.5	6.0	6.4	8.2	9.3	10.4	9.8	9.9	8.7	8.0	8.0	6.8	6.2	5.7	5.2	5.1	4.6	3.7	2.9	10.4	2.9	6.4		
8	2.2	2.7	2.7	2.5	2.4	2.4	2.7	3.6	4.5	4.8	5.6	6.7	8.3	7.1	7.4	7.8	7.7	7.9	6.3	5.3	4.8	4.2	3.1	2.3	8.3	2.2	4.8		
9	1.5	1.6	1.1	1.2	1.2	1.3	2.0	2.7	3.4	4.0	5.4	6.7	7.4	8.0	8.3	9.0	9.4	8.4	8.6	8.9	8.8	8.0	7.3	7.1	9.4	1.1	5.5		
10	6.8	6.7	5.9	5.4	5.6	5.7	5.7	6.1	7.5	8.9	10.4	12.7	14.4	15.7	16.8	18.0	18.7	18.8	19.0	18.7	18.2	13.3	10.2	7.2	19.0	5.4	11.5		
11	6.5	5.2	5.1	4.7	4.1	4.1	4.1	4.6	5.0	5.8	6.6	7.9	10.1	11.3	12.5	12.2	11.5	10.2	8.8	7.8	6.8	5.0	4.3	3.8	12.5	3.8	7.0		
12	3.8	3.7	3.7	3.7	3.6	3.6	3.6	3.7	4.0	4.3	4.5	4.5	4.7	4.9	5.1	5.4	6.3	6.8	7.1	7.5	7.3	7.2	6.0	5.2	7.5	3.6	5.0		
13	5.1	4.9	5.0	5.0	5.0	4.6	4.5	5.1	6.0	6.7	7.4	8.2	8.9	8.6	8.6	9.6	10.2	10.2	8.6	8.6	8.7	8.1	7.6	7.2	10.2	4.5	7.2		
14	7.0	6.9	6.4	5.7	5.8	5.8	5.9	6.5	7.9	8.8	9.7	10.9	12.0	12.4	11.9	12.5	11.0	11.4	12.4	12.8	12.5	11.8	11.2	10.7	12.8	5.7	9.6		
15	9.1	9.1	9.1	8.2	7.4	7.9	8.3	8.9	9.6	11.1	13.0	14.5	15.7	16.8	17.6	18.1	18.8	18.6	18.6	18.0	17.6	16.6	14.6	11.9	18.8	7.4	13.3		
16	10.4	9.6	8.9	8.7	8.0	7.0	7.4	8.6	9.8	11.1	12.3	13.3	14.2	14.7	14.9	14.8	14.7	14.3	13.7	12.8	11.4	10.5	9.6	8.6	14.9	7.0	11.2		
17	7.3	6.3	4.9	4.0	3.5	3.4	3.3	3.6	3.8	4.3	4.9	5.7	6.0	6.0	6.6	8.4	9.3	9.8	8.3	7.9	8.4	8.4	8.0	7.2	9.8	3.3	6.2		
18	6.9	6.7	6.6	6.6	5.8	5.0	5.5	6.2	7.1	8.2	9.0	9.5	10.0	10.5	11.4	12.4	12.5	11.2	12.4	11.0	11.5	9.6	9.2	9.3	12.5	5.0	8.9		
19	8.9	8.0	7.1	7.5	8.2	8.0	8.2	8.6	9.6	10.7	12.0	13.9	15.6	16.6	17.7	18.6	19.4	19.8	20.1	20.1	19.8	18.8	16.8	15.0	20.1	7.1	13.7		
20	13.4	12.6	12.3	11.6	11.0	10.6	11.2	12.3	13.5	15.0	16.5	17.8	19.2	20.1	20.7	21.1	21.8	21.4	19.9	19.9	18.6	17.0	14.8	12.9	21.8	10.6	16.0		
21	12.4	12.7	12.2	10.9	10.3	10.1	10.0	10.4	11.0	11.8	13.2	14.4	14.6	15.3	16.1	16.1	16.8	16.9	16.4	16.3	14.9	12.4	11.6	10.8	16.9	10.0	13.2		
22	9.2	8.5	6.5	5.8	5.7	5.0	4.3	4.6	4.8	5.1	5.8	5.9	6.1	6.2	6.6	6.8	7.0	7.1	7.2	7.1	6.8	6.7	6.5	6.3	9.2	4.3	6.3		
23	6.2	6.1	6.0	6.1	6.0	5.9	5.8	5.9	5.9	6.0	6.0	6.1	6.1	6.1	6.1	6.1	5.9	5.7	5.5	5.4	5.1	5.3	5.5	5.4	6.2	5.1	5.8		
24	5.1	5.1	5.1	4.9	4.9	5.1	5.3	5.8	6.3	6.5	6.5	7.0	7.1	6.9	7.0	6.9	7.1	6.9	6.9	7.0	6.9	6.5	6.0	5.8	7.1	4.9	6.2		
25	5.6	5.6	5.5	5.5	5.5	5.4	5.5	5.8	6.2	6.6	7.4	7.4	7.2	6.8	7.4	8.0	8.3	8.2	8.0	7.7	7.2	6.8	6.0	5.2	8.3	5.2	6.6		
26	4.8	4.3	4.1	4.2	4.7	4.4	5.1	6.7	7.3	8.2	9.3	9.3	9.9	10.5	11.7	12.1	12.7	13.1	13.8	13.5	13.5	12.4	10.3	8.9	13.8	4.1	8.9		
27	8.6	8.4	7.9	7.8	8.0	7.6	7.8	8.7	9.7	11.1	12.1	12.9	13.5	14.3	14.7	14.8	15.7	15.8	15.5	15.1	14.0	12.2	10.8	9.5	15.8	7.6	11.5		
28	8.9	8.0	7.5	7.1	6.8	6.7	6.7	6.9	7.1	7.3	7.8	8.3	8.3	8.5	9.1	9.8	10.3	9.9	9.8	10.6	10.6	10.1	9.5	9.0	10.6	6.7	8.5		
29	8.8	8.5	7.6	7.5	7.7	7.4	7.4	8.2	9.1	10.4	10.7	11.9	12.8	13.6	13.7	13.8	14.0	14.2	13.4	12.8	11.5	10.7	9.2	8.4	14.2	7.4	10.5		
30	7.9	7.6	7.3	7.3	7.6	7.6	7.9	8.0	8.3	8.4	9.3	9.5	10.3	11.0	11.1	11.6	11.7	11.4	11.0	11.0	10.3	9.1	8.3	7.7	11.7	7.3	9.2		
Max.	13.4	12.7	12.3	11.6	11.0	10.6	11.2	12.3	13.5	15.0	16.5	17.8	19.2	20.1	20.7	21.1	21.8	21.4	20.1	20.1	19.8	18.8	16.8	15.0	21.8				
Min.	1.5	1.6	1.1	1.2	1.2	1.3	2.0	2.7	3.4	3.8	4.3	4.5	4.7	4.9	5.1	5.4	5.9	5.7	5.5	5.1	4.8	4.2	3.1	2.3		1.1			
Avg.	6.6	6.3	5.9	5.7	5.6	5.5	5.6	6.2	6.9	7.6	8.5	9.3	10.0	10.3	10.7	11.1	11.4	11.3	10.9	10.6	10.1	9.1	8.1	7.2			8.4		
Total Hours in Month	720																								720		Data Recovery		100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	7.4	7.7	8.0	7.9	7.3	7.1	7.3	7.8	8.3	9.4	10.9	11.9	12.2	12.9	12.6	13.2	13.6	13.5	13.2	12.8	12.3	11.7	11.0	9.2	13.6	7.1	10.4
2	8.9	8.7	8.6	8.3	8.2	7.9	8.3	8.8	10.0	11.7	12.2	13.5	14.6	14.7	14.7	15.6	15.3	16.0	16.2	15.9	15.8	15.1	13.6	12.5	16.2	7.9	12.3
3	12.2	12.2	12.0	12.0	10.9	10.4	10.3	11.1	11.6	11.8	12.4	12.8	13.6	14.4	15.0	15.9	16.7	16.3	15.1	12.4	11.4	10.8	10.3	10.4	16.7	10.3	12.6
4	9.9	8.9	8.4	8.3	8.3	7.5	7.8	7.9	8.3	9.1	9.8	10.5	10.9	10.6	11.1	11.7	12.1	11.4	10.7	10.5	10.9	10.8	10.4	9.4	12.1	7.5	9.8
5	8.8	8.3	8.0	7.9	7.6	8.0	8.7	9.0	10.2	11.7	12.4	12.9	13.4	12.9	13.5	14.5	13.8	12.4	13.3	10.6	8.6	8.1	7.9	7.9	14.5	7.6	10.4
6	7.8	8.1	8.1	8.1	8.1	8.0	8.1	7.8	7.9	8.5	8.7	8.7	9.1	9.9	10.5	11.3	12.1	12.7	13.1	13.1	13.3	13.0	11.3	10.8	13.3	7.8	9.9
7	10.8	10.8	10.3	9.5	9.9	9.5	9.0	10.4	12.1	12.7	13.7	14.3	15.0	15.3	15.7	16.1	16.5	16.5	16.5	15.3	13.4	12.6	11.4	10.5	16.5	9.0	12.8
8	9.5	9.2	9.8	9.9	9.7	9.4	9.7	9.2	9.5	9.9	10.3	10.3	10.5	10.9	11.2	11.3	11.1	10.9	11.7	11.1	10.7	9.8	8.4	7.9	11.7	7.9	10.1
9	7.7	7.5	6.9	6.4	6.2	6.6	6.8	7.4	7.9	8.9	9.2	9.6	10.7	11.8	11.6	12.7	13.1	13.2	13.4	13.1	12.7	12.4	11.1	9.6	13.4	6.2	9.8
10	9.5	9.6	9.3	8.9	9.6	9.2	9.7	10.6	11.1	12.5	13.1	13.2	14.8	14.3	13.7	14.0	14.4	13.2	11.9	10.9	10.2	9.5	9.1	8.5	14.8	8.5	11.3
11	8.4	8.3	8.4	8.6	8.3	8.3	8.1	8.0	8.3	10.1	11.4	12.7	13.6	14.0	14.5	14.8	14.7	14.9	14.6	14.0	13.1	11.8	10.2	9.5	14.9	8.0	11.2
12	9.2	8.9	8.7	8.6	9.1	8.6	8.5	8.8	10.4	11.7	12.8	13.0	13.3	14.3	15.0	13.8	12.4	10.4	9.8	9.6	9.7	9.2	9.0	8.6	15.0	8.5	10.6
13	8.8	8.3	8.1	7.9	7.6	7.5	7.5	7.6	7.7	7.7	7.9	8.1	8.3	8.5	8.7	9.0	9.3	9.5	9.8	9.5	9.3	9.1	8.9	8.6	9.8	7.5	8.5
14	8.6	8.3	8.1	8.1	8.0	7.9	7.9	8.0	8.2	8.7	9.7	10.5	10.9	10.9	11.3	11.3	10.3	10.3	10.3	10.1	9.5	9.5	9.1	8.7	11.3	7.9	9.3
15	8.6	8.6	8.4	8.3	8.5	8.4	8.1	8.3	8.8	9.2	9.3	9.6	10.4	11.0	12.6	12.6	12.8	12.1	12.0	11.9	11.3	10.7	10.0	9.6	12.8	8.1	10.0
16	8.9	8.4	8.3	7.9	7.2	7.2	6.8	7.6	8.1	8.9	9.7	11.2	12.9	14.2	13.8	14.2	14.7	15.2	15.9	16.0	15.2	14.2	12.6	9.9	16.0	6.8	11.2
17	8.8	9.5	9.9	8.8	8.4	8.3	8.6	9.5	10.8	12.2	13.6	14.6	15.6	16.4	17.3	18.0	18.3	18.0	16.1	13.7	11.9	10.9	9.7	9.1	18.3	8.3	12.4
18	9.2	9.3	9.3	9.0	8.9	8.7	8.6	8.9	9.6	10.3	11.1	11.8	12.4	13.6	13.6	12.2	11.6	11.4	10.8	10.6	10.9	11.0	10.7	10.5	13.6	8.6	10.6
19	9.9	9.1	9.0	9.3	9.4	9.4	9.0	9.1	10.1	10.7	11.5	12.1	13.3	14.4	14.5	14.2	14.5	14.8	14.5	14.7	14.5	14.0	13.3	13.2	14.8	9.0	12.0
20	12.9	12.7	13.0	12.7	12.8	12.2	12.4	12.6	13.1	13.5	14.8	14.2	14.0	14.3	15.4	14.8	14.9	16.7	17.0	16.2	15.8	14.7	12.7	11.6	17.0	11.6	13.9
21	11.1	10.9	10.1	9.9	9.5	9.1	8.7	8.8	8.7	8.4	8.4	8.3	9.1	9.6	10.0	9.8	9.5	9.2	8.3	7.7	7.4	7.0	6.6	6.2	11.1	6.2	8.8
22	6.2	6.4	6.4	6.3	6.2	6.2	6.1	6.1	6.2	6.3	6.4	6.6	6.8	7.0	7.2	7.2	7.3	7.5	7.3	7.0	6.9	6.8	6.9	6.9	7.5	6.1	6.7
23	6.9	7.0	7.0	6.9	6.8	6.7	6.6	6.6	6.9	7.3	7.8	8.0	8.2	8.4	8.3	8.3	8.2	8.0	8.1	8.1	8.0	7.7	7.5	7.6	8.4	6.6	7.5
24	7.6	7.5	7.7	7.8	7.8	7.6	7.5	7.6	7.6	7.9	8.9	9.4	9.4	9.6	10.2	10.3	10.7	11.2	10.9	10.8	10.8	10.9	10.7	10.5	11.2	7.5	9.2
25	10.7	10.7	10.8	10.7	10.7	11.1	10.7	11.3	11.9	13.3	13.5	13.8	14.7	15.0	15.3	15.2	14.8	14.9	14.7	14.3	14.2	13.8	13.1	12.7	15.3	10.7	13.0
26	12.1	12.1	12.6	11.9	9.7	10.0	9.9	10.5	11.5	12.1	13.0	15.0	16.5	17.5	18.5	18.6	18.5	19.7	19.8	19.5	18.4	17.0	16.2	15.8	19.8	9.7	14.8
27	16.0	15.6	15.1	15.5	14.7	14.4	14.1	14.0	14.2	15.4	16.8	17.2	18.1	19.5	19.5	20.9	20.8	21.4	20.4	18.6	17.3	16.5	14.7	15.6	21.4	14.0	16.9
28	15.3	13.9	13.5	12.2	10.1	9.3	9.0	9.6	10.2	11.0	12.2	13.8	15.0	16.1	17.2	17.7	18.2	18.5	18.4	18.0	17.3	14.9	13.2	10.4	18.5	9.0	14.0
29	10.2	10.4	10.0	9.8	9.4	9.6	10.1	10.2	10.3	10.6	11.5	13.5	15.4	15.9	16.6	17.0	17.3	17.8	17.5	17.1	16.1	15.5	13.7	13.1	17.8	9.4	13.3
30	12.3	12.3	11.6	11.2	10.9	10.2	10.2	10.7	11.0	11.5	11.5	11.8	12.2	12.9	12.7	13.5	14.2	14.9	14.1	13.1	12.4	11.5	10.9	9.9	14.9	9.9	12.0
31	9.5	9.4	9.2	9.0	8.6	8.4	8.5	8.6	9.1	9.2	9.5	9.9	10.3	10.6	11.7	12.5	13.0	13.3	11.8	10.6	10.0	9.5	8.9	8.7	13.3	8.4	10.0
Max.	16.0	15.6	15.1	15.5	14.7	14.4	14.1	14.0	14.2	15.4	16.8	17.2	18.1	19.5	19.5	20.9	20.8	21.4	20.4	19.5	18.4	17.0	16.2	15.8	21.4		
Min.	6.2	6.4	6.4	6.3	6.2	6.2	6.1	6.1	6.2	6.3	6.4	6.6	6.8	7.0	7.2	7.2	7.3	7.5	7.3	7.0	6.9	6.8	6.6	6.2		6.1	
Avg.	9.8	9.6	9.5	9.3	9.0	8.8	8.8	9.1	9.7	10.4	11.1	11.7	12.4	12.9	13.3	13.6	13.7	13.7	13.5	12.8	12.2	11.6	10.7	10.1			11.1

Total Hours In Month

744

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

Day	August 2007																															Max.	Min.	Avg.							
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300																	
1	8.5	8.4	8.4	8.4	8.5	8.5	8.3	8.1	8.1	8.2	8.4	8.8	9.3	9.1	9.3	9.1	9.3	9.2	8.6	8.5	8.4	8.3	8.1	8.1	9.3	8.1	8.6														
2	8.2	8.0	8.0	8.1	8.0	8.0	8.2	8.3	8.1	8.2	8.6	8.6	8.6	8.7	8.8	9.0	9.2	9.1	9.0	8.9	9.1	9.2	8.9	8.8	9.2	8.0	8.6														
3	8.8	8.7	8.7	8.8	8.8	8.6	8.6	8.6	8.7	9.1	9.4	9.8	9.7	10.3	10.5	10.7	10.9	10.7	10.4	9.7	9.1	9.0	8.9	8.8	10.9	8.6	9.4														
4	8.9	8.9	8.9	8.8	8.8	8.8	8.8	8.9	8.9	8.9	9.0	9.1	9.2	9.5	9.5	9.5	9.6	9.5	9.7	9.8	9.7	9.6	9.7	9.7	9.8	8.8	9.2														
5	9.8	9.9	9.9	9.9	9.6	9.6	9.5	9.7	10.1	10.6	10.4	10.1	10.1	9.6	9.3	9.2	9.7	9.9	9.9	10.3	10.6	10.5	9.9	9.8	10.6	9.2	9.9														
6	9.0	8.1	8.0	7.8	8.0	8.0	8.2	8.5	9.0	9.8	10.5	11.0	11.4	12.3	12.3	12.5	12.2	12.6	12.5	11.8	11.5	10.4	9.5	7.6	12.6	7.6	10.1														
7	6.9	6.8	6.8	6.6	7.3	7.1	6.5	7.4	9.0	9.7	10.9	11.3	11.9	13.1	13.9	14.8	15.0	15.0	15.3	14.8	14.2	12.9	11.0	9.9	15.3	6.5	10.8														
8	9.0	8.6	8.2	8.1	7.7	8.0	8.4	8.7	9.0	9.6	11.5	13.0	14.2	15.4	15.9	16.5	16.6	16.7	16.7	16.4	15.3	13.7	12.2	11.1	16.7	7.7	12.1														
9	10.4	9.9	10.0	9.8	10.0	9.3	8.3	9.2	11.4	12.8	13.6	14.8	15.8	16.8	17.7	18.3	18.7	19.2	18.7	17.7	17.3	15.7	14.9	15.5	19.2	8.3	14.0														
10	14.5	12.8	12.8	13.1	13.0	13.4	13.3	13.5	14.2	15.2	16.0	17.1	18.1	18.7	19.2	19.8	20.0	20.0	19.4	18.5	17.2	16.1	15.2	14.7	20.0	12.8	16.1														
11	14.0	14.7	13.5	12.1	12.8	13.0	12.7	12.5	12.7	13.6	14.6	16.2	17.2	17.7	18.3	18.3	18.4	18.2	17.6	16.9	16.4	15.7	15.4	14.9	18.4	12.1	15.3														
12	14.7	15.1	14.5	14.2	13.5	13.0	12.9	13.1	13.2	13.5	14.0	14.6	15.9	17.1	17.8	18.8	20.3	21.9	21.9	22.2	21.3	19.6	18.0	17.0	22.2	12.9	16.6														
13	16.9	17.4	17.0	16.2	15.1	15.3	15.3	15.1	15.1	16.2	17.5	18.7	19.3	20.1	20.0	20.2	20.4	21.0	20.6	19.9	18.6	16.7	15.1	13.6	21.0	13.6	17.6														
14	12.4	11.1	9.1	7.5	7.6	7.1	7.3	7.6	7.6	7.6	7.5	7.6	7.9	8.1	8.8	9.5	9.2	9.2	9.3	9.1	9.6	8.8	7.9	7.7	12.4	7.1	8.5														
15	7.4	7.4	7.2	7.5	7.6	8.1	8.3	8.4	8.5	8.8	9.2	10.2	10.3	10.5	10.8	11.0	10.9	10.9	10.8	10.7	10.6	10.2	9.9	9.8	11.0	7.2	9.4														
16	9.6	9.3	9.2	8.7	9.2	8.6	7.8	8.2	9.5	9.7	11.2	12.5	13.8	14.7	15.4	16.3	16.8	17.1	16.1	14.7	13.6	11.6	11.3	11.1	17.1	7.8	11.9														
17	11.2	10.6	9.9	9.6	9.3	9.1	9.1	8.9	9.8	10.0	11.3	12.1	11.5	11.6	11.4	11.3	11.2	11.7	11.4	11.2	10.1	9.6	9.2	8.7	12.1	8.7	10.4														
18	8.4	8.7	9.0	9.0	8.5	8.0	8.2	8.1	8.1	8.5	8.7	8.6	8.5	8.6	9.3	10.1	10.5	11.1	10.9	10.8	10.8	10.6	10.7	10.7	11.1	8.0	9.3														
19	10.8	11.0	10.9	10.4	10.7	10.5	10.6	10.5	10.8	11.2	11.8	12.4	12.9	12.8	12.7	13.0	13.6	13.0	12.1	11.2	10.4	10.1	9.9	9.7	13.6	9.7	11.4														
20	9.4	9.0	8.7	8.4	8.4	8.4	8.5	8.6	8.7	8.6	8.7	8.9	9.5	9.8	10.1	10.6	11.0	11.6	11.3	10.6	9.9	9.0	8.5	8.3	11.6	8.3	9.3														
21	8.4	8.5	8.6	8.3	8.0	8.0	7.9	7.7	7.5	7.7	7.9	8.4	8.7	8.7	9.0	9.2	9.7	9.6	9.7	9.7	9.5	9.1	8.8	8.5	9.7	7.5	8.6														
22	8.3	8.3	8.4	8.4	8.3	8.2	8.2	8.2	8.2	8.1	8.2	8.6	8.9	9.1	9.2	8.9	8.9	9.1	9.0	8.8	8.5	8.1	8.0	7.9	9.2	7.9	8.5														
23	7.9	7.8	7.7	8.1	8.4	8.4	8.1	7.7	7.6	7.7	8.7	9.6	10.0	10.4	10.9	11.3	11.6	11.8	11.6	11.6	11.1	10.6	10.3	10.1	11.8	7.6	9.5														
24	10.2	10.1	10.2	10.0	9.5	9.3	9.0	8.9	9.1	9.9	10.8	11.6	13.0	13.6	14.0	14.2	13.3	14.6	13.3	11.7	11.6	11.2	11.0	10.4	14.6	8.9	11.3														
25	10.4	10.2	10.2	10.1	10.0	9.4	9.1	8.9	8.9	9.1	9.5	9.8	10.1	11.3	12.4	13.4	15.0	14.9	14.3	13.5	11.8	10.3	9.9	9.8	15.0	8.9	10.9														
26	9.8	9.2	8.9	8.8	8.4	8.7	8.7	9.0	9.2	10.2	11.2	12.3	12.8	12.8	13.1	13.0	12.5	12.8	13.3	12.2	11.1	10.5	10.0	9.7	13.3	8.4	10.8														
27	9.7	9.4	9.0	9.8	9.6	8.9	9.1	9.0	10.6	11.2	12.5	14.3	14.4	14.7	15.2	15.4	15.5	15.2	15.1	15.0	13.7	12.7	12.7	12.4	15.5	8.9	12.3														
28	12.0	10.7	10.5	10.5	11.2	11.4	11.2	10.8	11.0	12.3	13.1	13.9	14.8	15.7	16.2	16.6	17.0	17.0	17.5	17.2	15.5	13.1	11.8	11.2	17.5	10.5	13.4														
29	10.4	10.3	10.8	10.2	10.3	10.0	10.0	9.7	9.6	9.7	10.0	10.4	11.1	12.7	14.0	14.4	14.6	14.8	14.4	14.3	13.3	11.4	10.6	9.4	14.8	9.4	11.5														
30	8.9	8.5	8.1	7.8	7.3	7.2	7.3	7.5	8.1	9.0	9.6	10.8	11.6	12.2	12.8	13.5	13.9	14.4	14.7	14.5	11.9	10.8	9.9	8.9	14.7	7.2	10.4														
31	9.2	8.8	8.4	8.1	7.4	7.4	7.2	7.4	7.9	8.8	9.2	9.5	11.5	13.2	14.1	14.6	13.9	13.1	12.3	13.0	11.9	11.2	10.1	10.3	14.6	7.2	10.4														
Max.	16.9	17.4	17.0	16.2	15.1	15.3	15.3	15.1	15.1	16.2	17.5	18.7	19.3	20.1	20.0	20.2	20.4	21.9	21.9	22.2	21.3	19.6	18.0	17.0	22.2																
Min.	6.9	6.8	6.8	6.6	7.3	7.1	6.5	7.4	7.5	7.6	7.5	7.6	7.9	8.1	8.8	8.9	8.9	9.1	8.6	8.5	8.4	8.1	7.9	7.6		6.5															
Avg.	10.1	9.9	9.7	9.4	9.4	9.3	9.2	9.3	9.6	10.1	10.7	11.4	12.0	12.5	13.0	13.3	13.5	13.7	13.5	13.1	12.4	11.5	10.9	10.5			11.2														
Total Hours in Month	744																															Data Recovery					100.0%				

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	11.2	11.4	11.0	10.2	9.6	9.3	8.8	7.9	8.1	8.4	8.5	8.9	9.0	9.2	9.5	10.4	11.0	11.6	11.3	10.8	9.3	8.1	7.5	7.2	11.6	7.2	9.5
2	7.4	7.6	7.5	7.5	7.4	7.4	7.5	7.9	8.1	8.4	8.8	9.3	10.1	11.0	11.9	16.1	10.3	8.1	10.4	9.9	9.1	8.7	8.4	8.2	16.1	7.4	9.0
3	7.9	7.8	7.6	7.7	7.8	7.8	7.7	7.7								7.6	7.3	7.2	7.0	7.0	7.0	6.9	6.9	7.1	7.9	6.9	7.4
4	7.0	7.3	7.6	7.6	6.8	7.1	7.1	7.6	8.0	8.9	9.8	10.1	10.8	11.9	12.3	13.0	13.2	11.0	12.2	11.1	9.3	8.5	8.1	8.3	13.2	6.8	9.4
5	8.1	7.4	8.0	8.7	8.0	8.0	7.8	8.0	8.6	9.1	10.0	11.7	12.2	12.4	13.2	13.5	9.9	9.1	8.8	8.8	8.9	8.6	8.3	8.7	13.5	7.4	9.4
6	8.7	8.1	7.5	7.6	7.7	7.5	7.2	6.5	6.9	7.3	7.9	8.3	8.4	8.8	9.5	9.3	9.7	9.6	9.1	8.5	8.1	7.2	6.4	6.2	9.7	6.2	8.0
7	6.1	6.7	6.8	6.8	6.8	7.0	7.1	7.3	7.4	7.9	7.8	7.8	8.1	8.4	8.5	8.9	8.8	8.5	8.5	7.6	7.5	7.7	7.9	8.1	8.9	6.1	7.7
8	8.3	8.4	8.5	8.7	8.9	9.1	9.3	9.6	9.8	9.7	9.7	9.6	9.7	9.8	9.9	10.2	10.3	10.7	10.8	10.7	10.5	10.1	9.5	9.3	10.8	8.3	9.6
9	9.0	8.7	8.4	8.5	8.5	8.7	8.7	8.4	8.2	8.4	8.8	9.2	9.0	9.3	9.9	10.2	10.7	10.9	10.7	9.7	9.4	8.5	8.0	7.8	10.9	7.8	9.1
10	8.4	8.2	8.0	8.2	7.6	7.8	7.8	7.8	8.1	8.6	9.1	9.8	10.5	10.6	10.4	10.5	10.1	10.4	9.9	9.0	8.4	8.0	7.8	7.8	10.6	7.6	8.9
11	7.7	7.8	8.0	8.0	7.9	7.7	7.8	7.6	7.7	8.2	8.6	8.0	8.0	7.6	7.0	7.0	6.9	7.0	6.7	6.6	6.6	6.6	7.2	7.3	8.6	6.6	7.5
12	7.4	7.4	7.5	7.5	7.5	7.5	7.5	7.1	7.2	7.4	7.5	8.1	9.6	10.6	10.9	11.1	10.6	8.7	7.9	7.2	6.7	6.8	7.0	6.8	11.1	6.7	8.1
13	6.6	6.2	6.1	6.1	6.1	6.3	6.2	6.2	6.3	6.4	6.5	6.4	6.8	8.0	7.6	7.3	7.2	6.7	6.0	6.2	5.8	5.7	5.6	5.1	8.0	5.1	6.4
14	4.8	4.7	4.8	4.8	4.7	4.6	4.4	4.3	4.7	5.5	6.3	6.7	7.2	7.9	8.4	9.4	9.1	8.8	8.2	6.8	5.9	4.5	4.1	2.8	9.4	2.8	6.0
15	3.7	3.3	3.2	3.0	2.3	2.3	2.1	1.7	1.6	2.6	4.4	6.0	7.1	7.7	7.6	7.5	8.2	9.2	9.4	7.7	5.8	4.7	6.1	6.0	9.4	1.6	5.1
16	5.7	5.5	5.2	5.2	4.6	4.3	4.4	4.2	3.9	4.1	5.7	7.0	7.9	8.5	9.2	9.1	9.8	9.7	9.5	8.9	6.5	6.3	6.1	5.6	9.8	3.9	6.5
17	5.5	5.5	5.3	4.7	4.9	4.8	4.6	4.5	4.7	5.1	5.2	5.4	5.6	6.5	7.3	8.0	8.0	8.2	8.0	7.4	6.3	5.7	5.9	6.0	8.2	4.5	6.0
18	6.5	6.4	6.3	6.3	6.4	6.5	6.7	7.3	7.6	7.6	8.0	8.3	8.9	8.8	8.8	8.5	8.7	8.7	8.5	8.3	8.1	7.9	7.9	8.3	8.9	6.3	7.7
19	8.7	8.5	8.6	8.3	7.8	7.5	7.5	7.4	7.3	7.4	7.5	7.7	7.7	7.8		8.1	7.3	6.7	6.5	6.2	6.1	6.2	6.1	6.1	8.7	6.1	7.3
20	5.9	5.7	5.8	5.6	5.7	5.9	5.8	5.8	5.7	5.6	5.5	5.9	6.2	6.6	7.3	7.9	8.2	8.4	7.7	6.4	6.0	6.2	5.8	5.9	8.4	5.5	6.3
21	5.8	5.1	4.7	5.0	5.4	5.3	5.3	5.3	5.4	5.6	6.5	7.3	7.9	8.4	9.1	8.6	9.0	9.7	8.8	8.0	6.0	5.1	5.1	5.1	9.7	4.7	6.6
22	4.4	4.4	4.1	3.6	4.5	4.0	3.7	3.9	4.6	5.0	4.8	5.6	6.2	7.1	8.1	8.0	7.9	7.4	6.3	5.2	4.8	4.6	4.4	4.4	8.1	3.6	5.3
23	4.4	4.3	4.4	4.5	4.8	5.1	4.9	4.8	4.8	4.8	5.4	6.4	6.7	7.0	6.9	6.5	6.0	5.7	5.7	5.6	5.4	5.3	5.4	5.5	7.0	4.3	5.4
24	5.5	5.1	5.1	5.3	5.0	4.5	4.2	4.4	4.5	4.7	5.4	5.8	6.6	6.8	6.2	6.1	5.3	5.9	4.5	4.3	3.5	3.5	3.6	3.3	6.8	3.3	5.0
25	3.1	3.3	3.1	2.9	3.4	4.0	4.0	4.3	4.2	4.1	5.1	5.6	5.7	6.1	6.1	6.1	5.4	5.1	4.8	4.4	4.4	4.5	4.2	3.9	6.1	2.9	4.5
26	3.6	3.5	3.3	3.0	2.8	2.8	2.7	2.6	2.5	2.8	4.3	5.3	5.3	5.1	5.0	5.6	5.5	6.2	6.0	5.3	4.9	4.8	4.6	4.4	6.2	2.5	4.3
27	3.7	3.7	3.6	2.9	3.4	4.0	3.4	3.0	2.6	2.0	2.6	3.2	4.0	4.3	5.1	4.9	4.6	4.9	4.8	4.9	4.9	4.7	4.3	3.8	5.1	2.0	3.9
28	3.7	3.6	3.0	2.4	2.2	2.3	2.4	2.6	2.7	2.8	3.2	3.4	3.6	3.7	3.9	4.2	4.4	4.8	4.5	4.1	3.8	4.1	4.3	3.7	4.8	2.2	3.5
29	2.9	2.8	2.5	2.6	2.3	2.1	2.6	2.9	2.9	3.3	4.4	5.5	5.9	6.5	6.2	5.9	5.6	5.1	4.9	4.9	4.4	4.5	4.4	4.2	6.5	2.1	4.1
30	3.9	3.3	2.0	1.8	2.2	2.4	2.4	2.5	2.4	2.6	2.7	3.8	4.1	4.3	3.9	4.2	4.1	4.4	4.0	3.1	2.9	3.1	3.3	3.3	4.4	1.8	3.2
Max.	11.2	11.4	11.0	10.2	9.6	9.3	9.3	9.6	9.8	9.7	10.0	11.7	12.2	12.4	13.2	16.1	13.2	11.6	12.2	11.1	10.5	10.1	9.5	9.3	16.1		
Min.	2.9	2.8	2.0	1.8	2.2	2.1	2.1	1.7	1.6	2.0	2.6	3.2	3.6	3.7	3.9	4.2	4.1	4.4	4.0	3.1	2.9	3.1	3.3	2.8		1.6	
Avg.	6.2	6.1	5.9	5.8	5.8	5.8	5.7	5.7	5.7	6.0	6.6	7.1	7.5	7.9	8.2	8.4	8.1	7.9	7.7	7.2	6.5	6.2	6.1	6.0			6.7
Total Hours in Month	720																								98.9%		
Hours Data Available	712																								Data Recovery		

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	3.2	3.0	2.8	2.5	2.6	2.8	2.3	2.0	2.0	2.3	2.5	3.2	3.8	4.4	4.8	5.2	5.8	5.1	3.7	3.4	3.0	2.8	2.9	2.6	5.8	2.0	3.3
2	2.3	1.9	1.5	1.4	1.4	1.3	1.3	1.3	1.1	1.1	1.2	1.4	2.1	2.8	3.1	3.2	3.6	3.5	3.2	1.7	1.2	0.6	0.6	0.1	3.6	0.1	1.8
3	0.0	0.3	0.3	0.4	0.3	0.0	-0.1	0.0	0.2	0.4	0.7	1.7	2.8	3.2	3.1	3.5	3.3	3.6	3.0	2.1	1.7	1.6	1.5	1.3	3.6	-0.1	1.5
4	1.1	1.4	1.3	0.7	-0.1	-0.3	-0.2	0.9	1.6	1.0	0.8	1.0	1.2	1.5	1.6	1.7	1.7	1.3	0.7	0.4	0.4	0.3	0.9	1.1	1.7	-0.3	0.9
5	0.9	0.6	0.3	0.5	0.5	0.6	0.5	0.3	0.1	0.3	0.7	1.0	0.7	1.2	1.4	1.8	1.9	1.5	1.2	0.8	0.0	-0.5	-0.9	-1.2	1.9	-1.2	0.6
6	-1.6	-2.4	-2.4	-2.4	-2.4	-2.3	-2.4	-2.9	-3.4	-3.7	-3.5	-3.0	-2.5	-2.1	-1.8	-1.8	-1.7	-1.7	-2.2	-2.8	-3.3	-3.3	-4.5	-4.9	-1.6	-4.9	-2.7
7	-5.5	-5.8	-6.4	-7.0	-6.9	-6.8	-6.4	-6.4	-6.6	-6.6	-6.1	-5.4	-4.7	-4.3	-4.4	-3.9	-3.7	-3.7	-4.2	-5.1	-5.9	-6.5	-7.0	-7.3	-3.7	-7.3	-5.7
8	-7.4	-7.0	-7.0	-7.3	-7.8	-7.9	-8.4	-8.7	-8.9	-9.1	-8.7	-7.7	-6.4	-5.5	-4.8	-4.2	-4.0	-4.3	-5.1	-5.8	-5.5	-5.0	-5.7	-7.1	-4.0	-9.1	-6.6
9	-6.4	-6.8	-6.1	-6.8	-5.6	-5.7	-5.5	-4.7	-5.8	-6.7	-5.3	-2.7	-2.1	-1.3	-0.7	-0.1	0.0	-0.4	-1.0	-1.7	-2.3	-2.0	-1.4	-1.3	0.0	-6.8	-3.4
10	-1.8	-2.7	-2.4	-2.0	-2.3	-1.9	-2.1	-2.3	-3.3	-3.3	-2.5	-1.7	-1.1	-0.5	0.1	0.0	0.0	-0.5	-1.3	-2.9	-3.1	-3.7	-4.0	-4.1	0.1	-4.1	-2.1
11	-4.4	-4.8	-5.2	-5.4	-5.5	-4.7	-4.8	-5.0	-4.5	-4.1	-3.6	-2.9	-2.3	-1.1	-0.3	0.4	0.4	0.3	0.2	0.0	0.4	0.6	0.7	0.7	0.7	-5.5	-2.3
12	0.8	1.1	1.1	0.8	1.1	1.3	0.6	0.1	0.8	0.8	1.0	1.6	1.7	2.2	2.6	2.9	3.3	3.4	3.1	1.8	0.9	-0.2	-0.6	-0.9	3.4	-0.9	1.3
13	-1.4	-1.5	-1.6	-2.0	-2.5	-3.0	-4.0	-4.3	-4.6	-5.1	-5.2	-5.2	-4.5	-3.8	-3.1	-2.5	-2.5	-2.8	-3.8	-4.9	-4.9	-4.5	-4.4	-4.4	-1.4	-5.2	-3.6
14	-4.9	-5.3	-5.4	-5.4	-5.5	-5.6	-5.9	-6.3	-7.3	-7.8	-7.7	-5.9	-5.4	-4.6	-4.2	-4.6	-4.3	-4.4	-4.6	-4.2	-4.3	-5.7	-6.9	-6.8	-4.2	-7.8	-5.5
15	-6.5	-6.4	-6.3	-6.3	-6.4	-6.4	-6.0	-5.6	-5.0	-4.7	-4.0	-2.7	-3.6	-2.4	-1.5	-0.1	0.1	-0.1	-0.4	-1.1	-1.5	-1.7	-2.0	-2.4	0.1	-6.5	-3.5
16	-2.4	-3.2	-3.4	-3.3	-4.2	-5.9	-6.6	-7.4	-8.0	-8.1	-8.0	-7.1	-6.3	-6.1	-5.5	-5.0	-4.8	-5.1	-5.6	-5.8	-5.9	-6.3	-6.4	-6.5	-2.4	-8.1	-5.7
17	-6.5	-6.5	-6.6	-6.7	-6.8	-6.8	-6.8	-6.8	-6.8	-6.8	-6.7	-6.6	-6.4	-6.0	-5.5	-5.1	-4.9	-4.9	-4.9	-4.9	-5.0	-5.1	-5.3	-5.6	-4.9	-6.8	-6.0
18	-5.5	-5.4	-5.6	-5.7	-5.7	-5.8	-5.9	-6.1	-6.0	-6.1	-6.1	-5.6	-5.5	-5.2	-5.0	-5.2	-5.3	-5.4	-5.6	-5.7	-5.7	-5.7	-6.2	-6.3	-5.0	-6.3	-5.7
19	-6.8	-6.6	-6.5	-6.8	-8.0	-7.7	-7.2	-6.7	-6.4	-6.4	-6.1	-5.5	-4.5	-3.7	-3.3	-2.9	-2.9	-3.2	-3.3	-4.1	-3.8	-3.4	-3.3	-3.8	-2.9	-8.0	-5.1
20	-3.7	-4.3	-3.8	-3.8	-4.0	-4.0	-4.7	-4.4	-4.0	-4.2	-4.7	-3.9	-3.5	-3.0	-2.5	-1.9	-1.7	-1.4	-1.3	-1.2	-0.6	0.0	-0.1	-0.3	0.0	-4.7	-2.8
21	-0.2	0.3	0.5	0.5	0.3	0.6	1.4	0.7	0.6	0.5	0.5	0.8	1.1	1.6	1.3	1.4	1.4	1.1	0.6	0.0	-0.3	-0.9	-1.6	-2.4	1.6	-2.4	0.4
22	-3.5	-4.2	-5.5	-6.9	-6.3	-7.0	-8.0	-7.8	-7.9	-7.0	-8.1	-8.6	-5.8	-4.3	-3.7	-3.0	-2.4	-2.9	-4.9	-6.0	-5.8	-4.6	-4.6	-5.3	-2.4	-8.6	-5.6
23	-5.8	-5.9	-5.8	-5.9	-5.9	-6.0	-5.7	-5.8	-5.8	-6.1	-5.6	-5.8	-5.3	-4.9	-4.5	-4.3	-4.2	-4.2	-4.9	-6.3	-6.9	-6.6	-6.0	-5.0	-4.2	-6.9	-5.6
24	-4.7	-4.5	-5.2	-5.9	-6.1	-5.9	-5.6	-5.3	-5.2	-5.0	-4.2	-3.0	-2.4	-1.0	-0.3	-0.3	-0.5	-0.6	-0.8	-0.8	-0.8	-0.7	-0.5	-0.3	-0.3	-6.1	-2.9
25	-0.6	-0.9	0.2	0.9	1.2	1.4	0.7	1.0	1.3	1.2	1.3	1.3	1.6	1.4	1.3	1.1	0.7	0.6	0.8	0.9	0.4	0.4	0.4	0.6	1.6	-0.9	0.8
26	0.8	0.9	1.0	0.9	0.9	0.8	0.3	0.2	0.8	1.0	1.3	1.1	1.3	1.6	1.9	2.0	1.9	2.0	2.0	1.9	1.6	1.5	1.5	1.4	2.0	0.2	1.3
27	1.0	1.3	1.2	0.9	0.9	1.0	0.9	1.1	0.1	0.9	1.1	1.4	1.6	2.2	2.1	1.2	0.8	1.4	1.4	1.5	1.4	1.6	1.8	2.0	2.2	0.1	1.3
28	1.5	1.2	1.1	1.1	1.0	1.0	1.0	0.5	-0.3	-0.3	0.1	0.4	0.5	0.8	1.0	1.0	0.8	0.8	0.5	0.3	0.0	-0.1	0.0	0.4	1.5	-0.3	0.6
29	0.6	0.6	0.7	0.7	0.7	0.7	0.8	1.1	1.3	1.8	2.1	2.5	2.5	2.9	2.4	2.5	2.7	2.5	2.2	1.9	2.1	1.1	0.7	0.7	2.9	0.6	1.6
30	0.8	1.1	1.0	0.6	0.7	0.8	0.4	0.3	0.2	-0.1	-0.2	-0.3	-0.2	0.1	-0.1	-0.3	-0.6	-0.8	-0.9	-1.0	-1.1	-0.8	-0.8	-0.9	1.1	-1.1	-0.1
31	-1.2	-1.3	-1.5	-1.4	-1.7	-2.0	-2.0	-1.3	-1.0	-1.0	-1.2	-1.2	-0.9	-0.7	-0.7	-0.6	-0.4	-0.9	-1.8	-1.9	-1.9	-1.5	-1.6	-1.0	-0.4	-2.0	-1.3
Max.	3.2	3.0	2.8	2.5	2.6	2.8	2.3	2.0	2.0	2.3	2.5	3.2	3.8	4.4	4.8	5.2	5.8	5.1	3.7	3.4	3.0	2.8	2.9	2.6	5.8		
Min.	-7.4	-7.0	-7.0	-7.3	-8.0	-7.9	-8.4	-8.7	-8.9	-9.1	-8.7	-8.6	-6.4	-6.1	-5.5	-5.2	-5.3	-5.4	-5.6	-6.3	-6.9	-6.6	-7.0	-7.3		-9.1	
Avg.	-2.2	-2.3	-2.4	-2.6	-2.6	-2.7	-2.8	-2.8	-2.9	-2.9	-2.7	-2.2	-1.7	-1.1	-0.8	-0.6	-0.5	-0.7	-1.1	-1.6	-1.8	-1.9	-2.0	-2.1			-2.0

Total Hours in Month

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	-1.0	-0.2	-0.4	-0.4	0.2	0.4	0.6	0.2	0.1	-0.4	-0.6	-0.4	-0.3	-0.2	0.0	0.1	0.0	-1.0	-1.8	-2.4	-2.7	-3.0	-3.2	-3.5	0.6	-3.5	-0.8
2	-3.7	-3.9	-4.0	-4.5	-4.2	-4.7	-4.9	-5.3	-5.4	-5.0	-4.9	-4.7	-4.6	-4.6	-5.2	-5.7	-5.1	-4.9	-5.2	-5.5	-5.4	-5.3	-5.3	-5.3	-3.7	-5.7	-4.9
3	-5.2	-5.0	-5.1	-5.3	-5.1	-5.0	-5.1	-5.3	-5.4	-5.6	-5.7	-5.1	-5.0	-4.8	-4.7	-4.2	-4.1	-4.7	-5.1	-4.9	-4.4	-4.0	-3.4	-2.9	-2.9	-5.7	-4.8
4	-2.7	-2.4	-1.8	-1.3	-1.0	-0.7	-0.5	-0.4	-0.3	-0.1	0.1	0.0	0.0	0.3	0.1	-0.1	-0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.0	0.4	-2.7	-0.4
5	-0.1	-0.2	-0.2	-0.2	-0.3	-0.4	-0.6	-0.8	-0.8	-0.8	-0.8	-0.7	-0.6	-0.5	-0.3	-0.2	-0.2	-0.4	-0.2	-0.3	-0.3	-0.4	-0.3	-0.6	-0.1	-0.8	-0.4
6	-0.4	0.0	0.0	0.0	0.2	0.1	0.2	0.6	0.4	0.5	0.8	0.9	1.1	1.5	1.9	2.0	2.0	1.8	1.4	1.1	0.7	0.3	-0.2	-0.7	2.0	-0.7	0.7
7	-0.5	-0.3	-0.5	-0.6	-0.2	-0.1	-0.1	-0.1	0.3	0.4	0.5	0.8	0.9	0.9	0.5	0.4	0.5	0.3	-0.3	-0.7	-0.9	-1.0	-1.0	-1.1	1.1	-1.1	-0.1
8	-1.0	-1.5	-2.1	-2.0	-2.2	-2.0	-1.1	0.0	0.4	0.0	0.1	0.7	0.6	0.7	1.3	1.2	1.6	1.9	1.4	1.3	1.0	0.3	0.0	0.0	1.9	-2.2	0.0
9	-0.1	-0.6	-0.6	-0.5	-0.6	-1.0	-1.3	-1.4	-1.5	-1.3	-1.3	-0.9	-0.7	-0.3	-0.3	-0.3	-0.7	-1.0	-2.0	-1.6	-1.5	-2.1	-1.8	-2.3	-0.1	-2.3	-1.0
10	-1.9	-2.1	-2.6	-2.8	-3.2	-3.3	-4.1	-4.5	-4.3	-4.2	-5.5	-5.5	-4.7	-4.1	-3.9	-4.0	-3.6	-3.9	-3.8	-4.3	-4.7	-4.4	-5.4	-5.6	-1.9	-5.6	-4.0
11	-5.7	-5.6	-5.8	-5.4	-6.1	-6.6	-6.9	-7.3	-7.7	-7.8	-7.7	-7.3	-7.3	-7.5	-7.4	-7.5	-7.9	-8.0	-7.8	-8.0	-8.3	-9.0	-8.9	-7.9	-5.4	-9.0	-7.3
12	-7.8	-7.7	-7.8	-7.1	-6.9	-6.3	-7.8	-8.4	-8.3	-8.2	-8.4	-7.7	-7.4	-7.3	-6.9	-6.6	-6.3	-6.0	-5.9	-5.7	-4.9	-4.5	-4.0	-3.7	-3.7	-8.4	-6.7
13	-3.3	-3.4	-3.2	-3.1	-3.0	-2.7	-2.6	-2.4	-2.2	-2.2	-2.1	-2.0	-2.3	-2.4	-2.0	-2.9	-2.9	-3.0	-2.7	-2.6	-2.7	-2.5	-2.3	-2.1	-2.0	-3.4	-2.6
14	-2.2	-2.3	-2.3	-2.4	-2.4	-2.5	-2.7	-3.1	-3.5	-3.5	-3.6	-3.5	-3.0	-3.1	-3.2	-3.2	-3.6	-3.6	-4.4	-5.0	-4.5	-4.5	-4.3	-5.3	-2.2	-5.3	-3.4
15	-5.4	-5.7	-5.9	-5.8	-7.7	-8.6	-8.7	-9.2	-10.3	-11.3	-12.3	-12.1	-12.3	-12.9	-12.6	-12.5	-12.7	-13.0	-12.8	-13.3	-13.1	-13.4	-14.0	-13.6	-5.4	-14.0	-10.8
16	-12.9	-12.9	-12.9	-13.0	-12.9	-13.0	-13.2	-13.6	-13.7	-13.7	-13.8	-13.7	-13.5	-13.4	-13.2	-13.3	-13.4	-13.3	-13.2	-13.2	-13.5	-13.9	-14.0	-14.3	-12.9	-14.3	-13.4
17	-15.0	-15.2	-15.2	-15.3	-15.2	-15.4	-15.7	-15.7	-15.7	-15.8	-15.9	-16.1	-16.0	-15.9	-15.7	-15.5	-15.9	-16.0	-16.7	-17.1	-17.6	-17.5	-18.0	-18.3	-15.0	-18.3	-16.1
18	-18.1	-17.8	-17.9	-18.0	-17.9	-18.5	-17.8	-17.9	-17.8	-16.8	-16.6	-17.0	-17.1	-16.3	-16.3	-16.0	-15.5	-14.6	-14.4	-13.1	-12.0	-11.8	-11.7	-11.3	-11.3	-18.5	-15.9
19	-11.2	-11.7	-12.0	-11.5	-11.0	-10.9	-10.7	-9.2	-9.6	-10.3	-9.9	-8.9	-8.0	-6.6	-5.9	-5.8	-5.6	-5.0	-4.4	-4.1	-4.0	-3.7	-3.1	-2.5	-2.5	-12.0	-7.7
20	-2.1	-1.8	-1.6	-1.1	-0.8	-0.1	1.5	1.9	2.6	2.7	2.7	2.4	2.2	2.2	1.8	2.3	2.7	3.0	2.3	1.3	1.1	1.2	1.5	1.6	3.0	-2.1	1.2
21	1.6	1.6	0.8	0.6	0.8	0.3	0.9	1.2	1.3	1.6	1.8	1.4	1.4	1.4	1.5	1.8	2.0	2.1	2.0	2.0	2.0	2.0	1.5	1.8	2.1	0.3	1.5
22	1.8	1.7	1.5	1.4	0.2	-0.1	0.1	0.1	-0.2	0.6	1.0	1.1	0.7	0.9	0.7	1.1	1.3	1.3	1.9	2.0	1.8	1.5	0.9	-0.5	2.0	-0.5	0.9
23	-1.0	-1.0	-0.8	-0.9	-1.1	-1.5	-1.6	-1.7	-2.0	-2.2	-2.6	-2.7	-3.1	-3.4	-3.6	-4.0	-3.7	-3.6	-4.0	-3.2	-3.4	-4.3	-5.5	-6.4	-0.8	-6.4	-2.8
24	-6.1	-6.1	-6.2	-6.3	-6.6	-6.4	-6.5	-6.8	-6.8	-6.6	-6.8	-6.3	-5.2	-3.9	-2.7	-2.1	-1.6	-1.4	-1.2	-1.1	-0.7	-0.5	-0.4	0.2	0.2	-6.8	-4.1
25	0.0	0.1	0.0	0.3	0.8	1.3	1.7	1.8	1.6	2.0	2.9	2.9	1.6	2.4	2.8	2.9	3.2	3.4	2.9	2.6	3.0	3.0	2.9	2.9	3.4	0.0	2.0
26	2.5	2.3	2.4	1.9	2.1	2.7	2.9	2.6	2.2	1.5	1.3	0.9	0.7	0.6	0.6	0.8	0.8	0.7	0.6	0.3	0.0	0.0	0.7	1.0	2.9	0.0	1.3
27	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.2	1.4	1.4	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.6	1.5	1.2	1.0	1.0	1.0	1.7	1.0	1.3
28	0.9	0.9	0.8	0.6	0.6	0.6	0.6	0.1	0.0	-0.4	-0.3	-0.2	0.0	0.0	0.4	0.7	0.9	1.2	1.3	1.3	1.3	1.5	1.5	1.4	1.5	-0.4	0.6
29	1.4	1.5	1.6	1.6	1.6	1.4	1.4	1.5	1.7	1.8	1.8	1.7	2.0	2.1	2.2	2.2	2.2	2.1	1.9	2.0	2.0	2.1	2.2	2.2	2.2	1.4	1.8
30	2.4	2.6	2.7	2.9	2.8	3.0	3.2	3.3	3.6	3.5	3.3	3.7	4.1	4.1	4.0	4.0	4.0	4.0	4.0	3.9	3.9	4.0	3.7	3.3	4.1	2.4	3.5

Max.	2.5	2.6	2.7	2.9	2.8	3.0	3.2	3.3	3.6	3.5	3.3	3.7	4.1	4.1	4.0	4.0	4.0	4.0	4.0	3.9	3.9	4.0	3.7	3.3	4.1					
Min.	-18.1	-17.8	-17.9	-18.0	-17.9	-18.5	-17.8	-17.9	-17.8	-16.8	-16.6	-17.0	-17.1	-16.3	-16.3	-16.0	-15.9	-16.0	-16.7	-17.1	-17.6	-17.5	-18.0	-18.3	-18.5					
Avg.	-3.2	-3.2	-3.3	-3.2	-3.3	-3.3	-3.3	-3.3	-3.3	-3.4	-3.4	-3.2	-3.1	-2.9	-2.8	-2.8	-2.7	-2.7	-2.7	-2.8	-2.9	-2.9	-2.9	-3.0	-3.1	-3.1				
Total Hours in Month	720										Hours Data Available										Data Recovery									
	720										720										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 2 meters (deg. C)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	3.0	3.4	2.7	2.4	2.3	2.1	1.6	1.2	0.6	0.9	1.2	1.2	0.2	0.2	0.2	0.0	-0.5	-0.5	-0.8	-0.8	-1.4	-0.4	-0.4	-1.6	-2.3	3.4	-2.3	0.6
2	-2.4	-3.1	-3.2	-4.1	-4.5	-4.5	-6.3	-5.8	-6.2	-4.4	-4.2	-4.6	-3.3	-2.7	-1.1	-1.2	-1.4	-4.0	-3.8	-3.9	-4.3	-4.7	-4.7	-5.1	-1.1	-6.3	-3.9	
3	-5.0	-5.1	-5.0	-4.7	-5.1	-5.5	-5.8	-6.1	-5.9	-5.8	-5.8	-6.1	-6.5	-6.5	-6.3	-6.4	-7.0	-7.5	-7.9	-8.6	-8.8	-9.0	-9.8	-9.4	-4.7	-9.8	-6.7	
4	-9.7	-9.2	-9.2	-8.9	-7.9	-7.9	-8.1	-7.2	-6.9	-6.7	-6.9	-7.0	-6.6	-6.4	-5.9	-5.4	-5.2	-5.2	-5.1	-5.0	-4.8	-4.6	-4.4	-4.2	-4.2	-9.7	-6.6	
5	-4.1	-4.1	-4.0	-3.8	-3.7	-3.6	-3.7	-3.8	-3.7	-3.7	-3.4	-3.0	-2.2	-1.7	-1.3	-1.2	-1.0	-0.9	-0.8	-0.7	-0.5	-0.5	-0.4	-0.5	-0.4	-4.1	-2.3	
6	-0.7	-0.5	-0.6	-0.6	-0.4	-0.6	-0.5	-0.3	-0.2	-0.2	-0.3	-0.4	-0.5	-0.7	-0.7	-1.0	-1.4	-1.5	-1.6	-1.9	-1.5	-1.2	-1.1	-1.2	-0.2	-1.9	-0.8	
7	-1.4	-1.2	-1.1	-1.2	-1.2	-1.4	-1.7	-1.8	-2.1	-2.3	-2.4	-2.3	-1.4	-1.4	-1.3	-1.0	-0.8	-0.7	-0.6	-0.5	-0.3	0.0	0.0	-0.1	0.0	-2.4	-1.2	
8	-0.2	-0.2	-0.4	-0.5	-0.8	-0.5	-0.6	-0.4	0.2	0.6	0.5	0.3	0.6	0.5	0.0	-0.4	-0.5	-0.9	-1.7	-2.1	-2.1	-2.0	-1.5	-1.6	0.6	-2.1	-0.6	
9	-1.8	-1.6	-1.6	-1.5	-1.5	-1.6	-1.9	-2.2	-2.5	-2.2	-1.3	-0.4	-0.1	0.2	0.3	0.5	0.7	0.8	0.9	0.7	0.6	0.6	0.6	0.5	0.9	-2.5	-0.6	
10	0.4	0.6	0.7	1.0	1.3	0.6	-0.1	-0.4	-0.5	-0.9	-0.6	-0.8	-1.4	-1.3	-1.6	-1.7	-1.8	-1.7	-1.6	-1.4	-1.3	-1.4	-1.8	-2.2	1.3	-2.2	-0.8	
11	-2.6	-2.8	-3.0	-3.5	-3.5	-3.5	-4.2	-4.7	-5.2																-2.6	-5.2	-3.8	
12																												
13																												
14	-14.4	-15.8	-15.7	-15.5	-15.5	-14.9	-15.3	-16.3	-16.7																-8.8	-14.0	-11.1	
15	-15.5	-15.7	-14.6	-13.4	-13.2	-13.4	-13.6	-13.7	-14.0	-13.6	-13.6	-13.8	-13.6	-13.6	-13.5	-13.8	-13.7	-13.6	-13.7	-13.6	-13.7	-13.6	-13.6	-13.6	-13.2	-15.7	-13.8	
16	-13.9	-14.7	-15.2	-15.5	-15.7	-16.0	-15.9	-16.0	-16.3	-16.7	-16.9	-16.9	-17.1	-17.3	-17.6	-18.0	-18.2	-18.3	-18.3	-18.1	-17.8	-17.9	-18.2	-18.4	-13.9	-18.4	-16.8	
17	-18.8	-18.9	-18.8	-18.9	-18.8	-18.9	-18.9	-18.8	-18.8	-18.8	-18.8	-19.0	-18.9	-18.8	-18.9	-19.2	-19.7	-20.1	-20.6	-21.0	-21.1	-21.4	-21.9	-22.0	-18.8	-22.0	-19.6	
18	-22.2	-22.5	-22.4	-22.8	-22.7	-22.7	-23.0	-23.4	-23.4	-23.5	-23.7	-23.9	-24.0	-24.2	-24.0	-24.2	-24.8	-25.1	-25.4	-25.4	-25.1	-25.6	-26.4	-26.7	-22.2	-26.7	-24.0	
19	-27.0	-27.0	-26.8	-26.8	-26.3	-25.6	-25.6	-26.9	-26.5	-26.0	-26.3	-26.1	-26.1	-26.0	-25.7	-26.1	-26.3	-26.6	-26.4	-26.8	-27.4	-26.9	-26.6	-25.8	-25.6	-27.4	-26.4	
20	-26.3	-23.7	-22.5	-22.1	-21.8	-20.2	-18.1	-17.2	-16.1	-14.7	-13.9	-13.3	-11.8	-10.6	-9.6	-8.6	-8.0	-7.5	-7.3	-6.6	-6.3	-6.2	-5.8	-5.7	-5.7	-26.3	-13.5	
21	-5.2	-3.9	-3.4	-3.1	-2.9	-3.0	-3.2	-3.7	-4.3	-4.8	-5.1	-4.8	-4.9	-5.1	-4.9	-5.6	-5.9	-5.5	-5.7	-5.4	-5.3	-5.2	-5.2	-4.5	-2.9	-5.9	-4.6	
22	-3.9	-3.7	-3.5	-3.4	-3.2	-3.0	-2.9	-3.2	-3.3	-3.0	-2.6	-2.6	-2.4	-2.2	-2.1	-2.2	-2.0	-2.4	-2.3	-2.1	-1.9	-3.2	-5.1	-5.5	-1.9	-5.5	-3.0	
23	-6.5	-8.5	-9.6	-10.0	-10.3	-10.5	-11.3	-12.0	-12.8	-12.9	-12.3	-12.4	-12.5	-12.4	-13.8	-14.2	-14.2	-13.6	-12.5	-12.2	-12.4	-12.6	-12.3	-12.9	-6.5	-14.2	-11.9	
24	-13.0	-13.5	-13.6	-14.2	-14.7	-15.3	-15.0	-15.7	-15.5	-15.5	-15.4	-15.2	-15.0	-14.9	-15.0	-15.2	-15.1	-15.1	-15.6	-15.9	-15.8	-15.3	-15.3	-15.5	-13.0	-15.9	-15.0	
25	-16.3	-17.1	-17.4	-17.7	-17.6	-18.0	-18.1	-18.5	-19.0	-19.7	-20.6	-20.7	-21.0	-21.0	-20.9	-20.8	-21.0	-21.2	-20.6	-20.6	-20.2	-20.2	-21.4	-21.9	-16.3	-21.9	-19.6	
26	-21.6	-21.5	-21.7	-20.5	-19.0	-17.8	-16.7	-17.6	-15.8	-13.3	-12.1	-12.6	-12.7	-11.6	-9.9	-8.4	-6.7	-4.9	-4.7	-5.5	-5.5	-4.9	-4.5	-4.0	-4.0	-21.7	-12.2	
27	-3.6	-3.3	-2.9	-2.5	-2.4	-2.0	-1.6	-1.1	-0.8	-0.9	-0.9	-0.7	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8	-0.9	-1.8	-2.2	-1.7	-1.8	-2.1	-0.5	-3.6	-1.6	
28	-2.1	-3.7	-5.9	-6.8	-6.8	-7.4	-7.2	-7.7	-6.9	-7.5	-9.1	-8.8	-9.0	-9.3	-9.1	-10.1	-10.8	-11.1	-11.3	-11.3	-11.0	-10.8	-10.3	-10.4	-2.1	-11.3	-8.5	
29	-10.6	-10.9	-10.9	-10.9	-11.2	-11.4	-11.6	-11.6	-11.3	-12.1	-11.7	-11.1	-11.8	-11.9	-12.3	-13.1	-13.1	-12.4	-12.1	-11.4	-11.0	-10.9	-10.8	-10.8	-10.6	-13.1	-11.5	
30	-10.9	-11.0	-11.1	-11.1	-11.3	-11.8	-12.5	-12.3	-12.9	-14.3	-14.6	-14.6	-13.6	-13.5	-13.3	-12.9	-12.3	-12.7	-12.8	-13.1	-13.0	-12.6	-12.3	-12.0	-10.9	-14.6	-12.6	
31	-11.8	-11.9	-11.5	-11.2	-11.3	-11.5	-11.8	-12.0	-12.4	-12.7	-12.8	-12.6	-12.6	-12.2	-12.2	-12.2	-11.9	-12.1	-12.1	-11.7	-11.9	-12.5	-13.1	-12.2	-11.2	-13.1	-12.1	
Max.	3.0	3.4	2.7	2.4	2.3	2.1	1.6	1.2	0.6	0.9	1.2	1.2	0.6	0.5	0.3	0.5	0.7	0.8	0.9	0.7	0.6	0.6	0.6	0.5	3.4			
Min.	-27.0	-27.0	-26.8	-26.8	-26.3	-25.6	-25.6	-26.9	-26.5	-26.0	-26.3	-26.1	-26.1	-26.0	-25.7	-26.1	-26.3	-26.6	-26.4	-26.8	-27.4	-26.9	-26.6	-26.7		-27.4		
Avg.	-9.2	-9.3	-9.4	-9.4	-9.3	-9.3	-9.4	-9.6	-9.6	-9.3	-9.4	-9.3	-9.2	-9.1	-8.9	-9.0	-9.0	-9.1	-9.1	-9.1	-9.2	-9.2	-9.4	-9.4			-9.3	

Total Hours in Month

Hours Data Available

673

Data Recovery

90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	-16.6	-16.9	-16.9	-17.5	-17.8	-18.9	-18.7	-19.6	-20.6	-22.3	-22.8	-23.1	-23.3	-23.6	-23.4	-24.0	-24.6	-25.0	-25.4	-24.9	-26.1	-26.0	-25.9	-26.2	-16.6	-26.2	-22.1
2	-26.8	-27.1	-27.5	-27.1	-27.1	-27.2	-27.5	-27.4	-27.3	-27.3	-26.5	-26.8	-26.8	-27.1	-27.3	-26.4	-25.7	-26.3	-26.8	-26.9	-27.6	-27.3	-27.0	-27.8	-25.7	-27.8	-27.0
3	-27.7	-28.0	-28.0	-28.2	-28.9	-29.1	-28.6	-29.4	-30.1	-30.6	-30.3	-30.9	-31.0	-30.9	-30.4	-30.4	-29.8	-29.3	-29.4	-29.3	-29.0	-29.9	-29.8	-29.5	-27.7	-31.0	-29.5
4	-29.8	-29.8	-29.7	-29.3	-29.3	-29.1	-28.9	-28.5	-28.3	-27.7	-27.7	-26.9	-25.9	-24.3	-23.3	-22.6	-22.2	-20.2	-18.3	-18.1	-17.7	-17.5	-17.3	-17.6	-17.3	-29.8	-24.6
5	-18.0	-19.8	-22.0	-23.7	-23.6	-23.7	-23.3	-24.4	-25.6	-25.7	-26.6	-27.1	-27.3	-26.9	-26.0	-26.4	-26.4	-25.7	-25.5	-25.2	-25.2	-26.0	-26.3	-25.8	-18.0	-27.3	-24.8
6	-25.7	-25.2	-25.2	-25.1	-24.9	-24.3	-24.2	-24.5	-24.9	-25.4	-25.6	-25.7	-26.2	-26.6	-26.5	-26.8	-27.5	-28.4	-28.7	-28.8	-29.5	-30.3	-30.9	-31.5	-24.2	-31.5	-26.8
7	-31.4	-31.7	-31.0	-31.2	-31.3	-31.5	-32.1	-32.8	-32.8	-33.0	-32.6	-32.7	-33.3	-32.1	-31.1	-31.3	-31.5	-31.8	-31.6	-31.5	-31.9	-31.8	-31.7	-31.2	-31.0	-33.3	-31.9
8	-31.5	-31.0	-31.1	-31.4	-31.0	-30.5	-30.0	-30.1	-30.0	-29.7	-29.3	-29.1	-29.1	-28.2	-28.1	-27.8	-27.1	-26.6	-26.6	-26.5	-25.5	-25.2	-24.8	-24.5	-24.5	-31.5	-28.5
9	-24.1	-24.8	-24.0	-23.0	-23.1	-24.3	-22.6	-21.7	-19.3	-18.9	-17.5	-17.6	-17.2	-16.1	-16.0	-16.6	-15.4	-14.8	-14.3	-13.9	-13.4	-13.5	-13.1	-13.6	-13.1	-24.8	-18.3
10	-12.6	-12.3	-13.1	-12.2	-11.9	-12.1	-11.9	-11.0	-10.4	-9.6	-8.9	-8.2	-7.3	-6.4	-5.7	-5.4	-5.1	-4.8	-4.2	-3.9	-3.8	-3.6	-3.4	-3.4	-3.4	-13.1	-8.0
11	-3.2	-2.9	-2.6	-2.4	-2.3	-2.3	-2.2	-2.1	-2.2	-2.0	-2.1	-2.1	-1.9	-1.7	-1.8	-1.9	-1.9	-1.8	-1.9	-1.7	-1.7	-1.7	-1.7	-1.8	-1.7	-3.2	-2.1
12	-2.0	-2.0	-2.0	-2.1	-2.1	-2.1	-2.1	-2.1	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-1.9	-1.7	-1.6	-1.7	-1.7	-1.7	-1.8	-1.6	-1.6	-1.8	-1.6	-2.1	-1.9
13	-2.6	-3.4	-3.8	-3.9	-3.7	-3.5	-3.6	-3.8	-4.0	-4.0	-4.3	-4.5	-4.3	-4.5	-4.8	-4.6	-4.6	-4.9	-5.5	-6.5	-6.7	-6.6	-6.9	-7.0	-2.6	-7.0	-4.7
14	-7.7	-8.2	-8.9	-9.7	-9.6	-10.0	-9.8	-9.5	-9.5	-9.1	-8.8	-8.7	-8.4	-8.5	-8.6	-8.7	-8.8	-8.4	-8.6	-8.8	-9.0	-9.2	-9.6	-9.4	-7.7	-10.0	-9.0
15	-9.3	-9.6	-10.1	-10.0	-10.3	-10.3	-9.9	-9.7	-10.0	-10.3	-10.6	-10.6	-10.8	-11.5	-11.4	-11.2	-11.3	-11.6	-11.9	-12.1	-12.8	-14.0	-13.9	-14.4	-9.3	-14.4	-11.1
16	-13.7	-13.3	-12.8	-12.7	-13.7	-12.9	-11.3	-10.5	-8.5	-8.7	-7.8	-6.9	-7.0	-7.0	-6.2	-5.5	-5.0	-4.6	-4.2	-4.0	-4.0	-4.2	-4.4	-4.3	-4.0	-13.7	-8.0
17	-4.0																								-4.0	-4.0	-4.0
18																											
19																											
20																											
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Max.	-2.0	-2.0	-2.0	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.0	-2.0	-2.0	-1.9	-1.7	-1.8	-1.7	-1.6	-1.7	-1.7	-1.7	-1.7	-1.6	-1.6	-1.8	-1.6		
Min.	-31.5	-31.7	-31.1	-31.4	-31.3	-31.5	-32.1	-32.8	-32.8	-33.0	-32.6	-32.7	-33.3	-32.1	-31.1	-31.3	-31.5	-31.8	-31.6	-31.5	-31.9	-31.8	-31.7	-31.5	-31.5	-33.3	
Avg.	-16.9	-17.9	-18.0	-18.1	-18.1	-18.2	-17.9	-17.9	-17.8	-17.9	-17.7	-17.7	-17.6	-17.3	-17.0	-17.0	-16.8	-16.6	-16.5	-16.5	-16.6	-16.8	-16.8	-16.9	-16.6		-16.6

Total Hours in Month

744

Hours Data Available

385

Data Recovery

51.7%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1																											
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Max.																											
Min.																											
Avg.																											

Total Hours in Month 744 Hours Data Available 0 Data Recovery 0.0% HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

Day	April												2007												Max.	Min.	Avg.
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300			
1																											
2																											
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29																											
30																											
Max.																											
Min.																											
Avg.																											
Total Hours in Month	720																										
Hours Data Available														0													
Data Recovery																									0.0%		

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

May 2007

Max. Min. Avg.

2300 2200 2100 2000 1900 1800 1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0

Day

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Max.
Min.
Avg.

Total Hours in Month

744

Hours Data Available

0

Data Recovery

0.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max. Min. Avg.
1																									
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30																									
Max.																									
Min.																									
Avg.																									
Total Hours in Month				720																					
Hours Data Available																									
Data Recovery														0											0.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

July 2007

Max. Min. Avg.

2300 2200 2100 2000 1900 1800 1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0

Day

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Max.
Min.
Avg.

Total Hours in Month

744

Hours Data Available

0

Data Recovery

0.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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31	10.0	9.6	9.5	9.1	8.4	8.5	8.2	7.7	8.0	8.7	9.3	10.4	11.2	11.7	12.2	12.9	13.4	13.9	14.3	14.2	12.8	11.7	11.2	10.3	14.3	7.6	11.4
Max.	10.0	9.6	9.5	9.1	8.4	8.5	8.2	7.7	8.0	8.7	9.3	10.4	11.2	12.5	13.5	14.1	13.4	13.9	14.3	14.2	12.8	11.9	11.2	11.1	14.3		
Min.	10.0	9.6	9.5	9.1	8.4	8.5	8.2	7.6	7.8	8.6	8.7	8.9	10.9	11.7	12.2	12.9	13.4	12.8	12.5	13.1	12.2	11.7	10.8	10.3		7.6	
Avg.	10.0	9.6	9.5	9.1	8.4	8.5	8.2	7.6	7.9	8.7	9.0	9.7	11.0	12.1	12.9	13.5	13.4	13.4	13.4	13.7	12.5	11.8	11.0	10.7			11.0
Total Hours in Month	744																										
	Hours Data Available																										
	41																										
	Data Recovery																										
	5.5%																										

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	11.8	11.7	11.2	10.8	10.0	9.7	9.1	8.2	8.1	8.1	8.2	8.5	8.7	8.9	9.2	10.1	10.7	11.2	11.1	10.6	9.4	8.4	7.9	7.7	11.8	7.7	9.5	
2	7.7	7.7	7.6	7.5	7.4	7.4	7.5	7.9	8.1	8.3	8.6	8.9	9.5	10.6	14.5	17.3	10.5	8.1	10.2	9.8	9.1	8.7	8.5	8.2	17.3	7.4	9.1	
3	8.0	7.9	7.7	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.5	7.2	6.9	6.7	6.7	6.7	6.7	6.8	7.2	8.0	6.7	7.3	
4	7.2	7.6	7.9	7.8	7.2	7.4	7.4	8.2	8.3	8.9	9.6	9.9	10.6	11.4	11.7	12.3	12.6	10.7	11.8	11.0	9.6	9.1	8.6	8.8	12.6	7.2	9.4	
5	9.1	8.5	8.9	9.3	9.0	8.9	8.8	8.8	8.9	9.1		11.0	11.5	11.6	12.1	12.6	9.6	9.1	9.0	9.2	9.2	9.1	8.7	9.0	12.6	8.5	9.6	
6	8.8	8.4	7.8	7.9	7.9	7.8	7.4	6.6	6.8	7.1	7.6	7.8	7.9	8.1	8.2	8.4	8.7	8.7	8.4	8.5	7.6	7.5	7.7	7.9	8.7	6.1	7.7	
7	6.1	6.7	6.8	6.8	7.0	7.2	7.3	7.4	7.4	7.7	7.8	7.9	8.1	8.2	8.4	8.7	10.1	10.2	10.5	10.7	10.6	10.5	10.1	9.5	9.3	10.7	8.3	9.6
8	8.3	8.4	8.5	8.7	8.9	9.1	9.3	9.6	9.8	9.7	9.7	9.5	9.6	9.7	9.7	10.1	10.2	10.5	10.6	9.5	9.4	9.1	8.7	8.2	10.6	8.2	9.1	
9	9.0	8.7	8.5	8.6	8.6	8.8	8.8	8.4	8.2	8.4	8.6	9.0	8.8	9.1	9.5	9.8	10.3	10.6	10.6	9.5	9.4	9.1	8.7	8.2	10.6	8.2	9.1	
10	8.7	8.5	8.5	8.4	7.8	8.2	8.0	8.0	8.3	8.6	8.7	9.2	9.9	10.1	10.0	9.9	9.7	10.2	9.8	9.1	8.5	8.2	8.0	8.0	10.2	7.8	8.8	
11	7.9	8.0	8.1	8.0	7.9	7.7	7.8	7.7	7.7	8.0	8.4	8.0	8.0	7.5	6.9	6.9	6.9	7.0	6.6	6.5	6.6	6.8	7.2	7.3	8.4	6.5	7.5	
12	7.4	7.5	7.5	7.5	7.4	7.4	7.5	7.1	7.1	7.2	7.2	7.8	9.0	9.8	10.0	10.3	10.0	8.4	7.7	7.2	6.9	7.0	7.0	6.9	10.3	6.9	7.9	
13	6.7	6.3	6.2	6.1	6.1	6.3	6.2	6.3	6.3	6.3	6.3	6.2	6.4	7.5	7.3	7.0	7.0	6.6	5.9	6.1	5.8	5.7	5.6	5.1	7.5	5.1	6.3	
14	4.9	4.8	4.8	4.8	4.7	4.7	4.6	4.6	4.8	5.3	6.1	6.5	6.9	7.5	8.0	8.7	8.6	8.4	8.1	6.9	6.6	5.5	4.7	3.9	8.7	3.9	6.0	
15	4.4	3.9	4.0	3.7	3.0	2.9	2.8	2.3	2.1	2.4	4.0	5.5	6.4	6.9	7.1	7.1	7.8	8.5	8.8	7.8	6.7	6.0	6.3	6.1	8.8	2.1	5.3	
16	5.8	5.5	5.3	5.5	4.8	4.8	5.1	5.3	4.7	4.1	5.1	6.6	7.4	7.8	8.4	8.5	9.2	9.3	9.1	8.7	6.8	6.5	6.2	5.6	9.3	4.1	6.5	
17	5.5	5.6	5.4	4.8	5.0	4.8	4.7	4.6	4.7	5.0	5.1	5.2	5.4	6.2	6.9	7.4	7.5	7.8	7.8	7.5	6.5	6.0	6.2	6.2	7.8	4.6	5.9	
18	6.7	6.6	6.4	6.3	6.5	6.5	6.7	7.4	7.7	7.6	8.1	8.3	8.8	8.7	8.7	8.5	8.6	8.6	8.4	8.3	8.0	7.9	7.9	8.3	8.8	6.3	7.7	
19	8.8	8.6	8.6	8.4	7.9	7.6	7.5	7.4	7.4	7.3	7.5	7.6	7.5	7.6		7.9	7.2	6.6	6.4	6.2	6.1	6.2	6.0	6.0	8.8	6.0	7.3	
20	5.9	5.7	5.7	5.6	5.7	5.8	5.8	5.7	5.6	5.4	5.7	6.0	6.3	6.9	6.9	7.5	7.9	8.1	7.6	6.5	6.4	6.3	5.9	6.0	8.1	5.4	6.2	
21	5.7	5.4	5.3	5.3	5.5	5.3	5.4	5.4	5.4	5.5	6.2	6.9	7.3	7.8	8.4	8.3	8.5	9.3	8.6	8.3	7.0	6.1	6.2	5.9	9.3	5.3	6.6	
22	5.5	5.5	5.5	4.7	5.4	5.1	4.6	4.5	5.1	5.2	4.8	5.3	5.9	6.9	7.9	7.9	7.9	7.6	6.5	5.2	4.7	4.5	4.6	4.4	7.9	4.4	5.6	
23	4.4	4.4	4.4	4.6	4.9	5.2	5.2	5.0	5.1	5.0	5.3	6.0	6.3	6.5	6.6	6.3	5.9	5.6	5.6	5.6	5.4	5.3	5.3	5.5	6.6	4.4	5.4	
24	5.5	5.1	5.0	5.3	5.2	4.6	4.4	4.5	4.5	4.6	5.3	5.5	6.1	6.4	5.9	5.9	5.2	5.9	4.5	4.3	3.5	3.5	3.6	3.2	6.4	3.2	4.9	
25	3.2	3.5	3.1	2.9	3.4	3.9	4.2	4.3	4.3	4.1	4.9	5.1	5.2	5.6	5.6	5.7	5.1	4.8	4.7	4.3	4.4	4.5	4.2	3.9	5.7	2.9	4.4	
26	3.6	3.5	3.2	3.0	2.7	2.7	2.7	2.5	2.4	2.8	4.0	4.9	4.9	4.8	4.8	5.3	5.3	5.9	5.9	5.3	5.1	5.1	5.0	5.0	5.9	2.4	4.2	
27	4.4	4.0	4.1	3.5	3.8	4.2	3.8	3.3	3.4	2.5	2.4	2.8	3.6	3.8	4.6	4.6	4.4	4.6	4.8	4.9	5.0	4.8	4.4	3.9	5.0	2.4	4.0	
28	3.8	3.6	2.9	2.4	2.1	2.3	2.4	2.6	2.7	2.8	3.1	3.3	3.4	3.5	3.7	3.9	4.2	4.5	4.4	4.1	4.0	4.3	4.6	4.1	4.6	2.1	3.5	
29	3.5	3.3	3.4	3.7	3.6	3.2	3.3	3.4	3.7	3.8	4.1	5.0	5.5	5.9	5.6	5.4	5.2	4.8	4.8	4.8	4.4	4.6	4.4	4.3	5.9	3.2	4.3	
30	4.0	3.3	2.0	1.8	2.1	2.3	2.4	2.5	2.3	2.5	2.6	3.7	3.9	4.0	3.7	4.0	4.0	4.2	3.8	3.1	2.9	3.0	3.3	3.2	4.2	1.8	3.1	
Max.	11.8	11.7	11.2	10.8	10.0	9.7	9.3	9.6	9.8	9.7	9.7	11.0	11.5	11.6	14.5	17.3	12.6	11.2	11.8	11.0	10.5	10.1	9.5	9.3	17.3			
Min.	3.2	3.3	2.0	1.8	2.1	2.3	2.4	2.3	2.1	2.4	2.4	2.8	3.4	3.5	3.7	3.9	4.0	4.2	3.8	3.1	2.9	3.0	3.3	3.2		1.8		
Avg.	6.4	6.3	6.1	6.1	6.0	6.0	5.9	5.9	5.9	6.0	6.2	6.8	7.2	7.5	7.9	8.1	7.8	7.7	7.6	7.1	6.7	6.5	6.3	6.2			6.7	
Total Hours in Month		720																								Data Recovery		98.8%
		711																										

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	3.2	3.0	2.8	2.6	2.7	2.8	2.8	2.7	2.4	2.5	2.6	2.9	3.5	4.0	4.4	4.8	5.2	4.9	3.6	3.5	3.1	3.0	3.1	2.7	5.2	2.4	3.3
2	2.3	2.0	1.5	1.3	1.3	1.2	1.2	1.2	1.1	1.0	1.1	1.2	1.8	2.4	2.8	3.0	3.3	3.6	3.4	2.1	1.6	1.0	0.8	0.3	3.6	0.3	1.8
3	0.1	0.4	0.3	0.4	0.3	0.0	0.0	0.0	0.1	0.3	0.4	1.4	2.3	2.7	2.6	2.9	2.9	3.4	3.0	2.4	2.0	2.0	1.9	1.8	3.4	0.0	1.4
4	1.6	1.7	1.6	1.1	0.2	-0.1	0.0	1.0	1.7	1.1	0.8	1.0	1.2	1.4	1.6	1.6	1.7	1.3	0.7	0.3	0.4	0.3	0.9	1.2	1.7	-0.1	1.0
5	0.9	0.7	0.3	0.5	0.6	0.6	0.5	0.3	0.1	0.3	0.7	1.0	0.7	1.2	1.6	1.9	2.0	1.6	1.2	0.9	0.1	-0.4	-0.6	-0.9	2.0	-0.9	0.7
6	-1.4	-2.2	-2.4	-2.5	-2.5	-2.4	-2.5	-3.0	-3.5	-3.8	-3.7	-3.2	-2.6	-2.3	-2.1	-2.0	-1.8	-1.8	-2.2	-2.6	-3.2	-3.2	-4.2	-4.7	-1.4	-4.7	-2.7
7	-5.2	-5.7	-6.2	-6.8	-6.7	-6.8	-6.4	-6.3	-6.4	-6.5	-6.1	-5.5	-4.8	-4.4	-4.4	-4.1	-3.9	-3.9	-4.2	-5.0	-5.7	-6.3	-6.8	-7.2	-3.9	-7.2	-5.6
8	-7.3	-6.8	-6.9	-7.2	-7.7	-7.8	-8.2	-8.5	-8.8	-9.0	-8.8	-8.0	-6.7	-5.7	-5.1	-4.4	-4.1	-4.3	-4.9	-5.2	-5.2	-4.8	-5.3	-6.4	-4.1	-9.0	-6.6
9	-6.2	-6.1	-5.2	-5.8	-5.2	-5.4	-5.1	-4.4	-5.4	-5.7	-4.5	-2.7	-2.4	-2.0	-1.4	-0.7	-0.4	-0.5	-0.5	-1.0	-1.6	-1.6	-1.1	-0.8	-0.4	-6.2	-3.1
10	-1.2	-1.5	-1.9	-2.0	-2.1	-1.8	-2.0	-2.3	-3.2	-3.2	-2.5	-1.8	-1.4	-0.9	-0.4	-0.3	-0.4	-0.8	-1.1	-2.4	-2.6	-3.1	-3.3	-3.4	-0.3	-3.4	-1.9
11	-3.7	-3.8	-4.2	-4.6	-4.7	-4.2	-4.3	-4.5	-3.9	-3.7	-3.6	-3.0	-2.4	-1.3	-0.5	0.2	0.2	0.2	0.0	0.5	0.6	0.8	0.8	0.8	0.8	-4.7	-2.0
12	0.9	1.2	1.2	1.0	1.3	1.4	0.9	0.3	1.2	1.0	1.4	1.7	1.5	1.9	2.3	2.6	2.9	3.3	3.3	2.8	1.5	0.3	-0.2	-0.7	3.3	-0.7	1.5
13	-1.2	-1.4	-1.6	-2.0	-2.5	-3.1	-4.1	-4.3	-4.6	-5.2	-5.4	-5.6	-5.0	-4.4	-3.8	-3.1	-3.0	-3.2	-3.9	-4.7	-4.7	-4.6	-4.5	-4.5	-1.2	-5.6	-3.8
14	-4.9	-5.4	-5.5	-5.5	-5.5	-5.7	-6.0	-6.4	-7.0	-7.8	-7.7	-6.2	-5.7	-5.0	-4.6	-4.6	-4.5	-4.5	-4.6	-4.3	-4.2	-4.8	-5.8	-6.1	-4.2	-7.8	-5.5
15	-6.1	-6.1	-6.1	-6.2	-6.2	-5.9	-5.3	-4.5	-4.3	-4.4	-3.8	-2.6	-3.4	-2.6	-1.7	-0.3	0.1	0.1	0.0	-0.5	-1.2	-1.2	-1.4	-1.5	0.1	-6.2	-3.1
16	-1.7	-2.4	-2.7	-2.8	-3.2	-4.6	-5.5	-6.6	-7.0	-7.5	-7.8	-7.1	-6.6	-6.4	-5.8	-5.3	-5.1	-5.3	-5.8	-5.9	-6.0	-6.4	-6.5	-6.6	-1.7	-7.8	-5.4
17	-6.6	-6.7	-6.7	-6.8	-6.9	-6.9	-6.9	-7.0	-6.9	-6.9	-6.8	-6.8	-6.6	-6.3	-5.8	-5.4	-5.1	-5.1	-5.0	-5.0	-5.1	-5.2	-5.4	-5.6	-5.0	-7.0	-6.1
18	-5.5	-5.5	-5.6	-5.7	-5.7	-5.8	-5.9	-6.1	-6.0	-6.1	-6.1	-5.8	-5.7	-5.5	-5.3	-5.4	-5.4	-5.5	-5.7	-5.8	-5.7	-5.7	-5.9	-6.1	-5.3	-6.1	-5.7
19	-6.4	-6.4	-6.5	-6.6	-7.3	-7.2	-6.6	-6.2	-5.9	-5.7	-5.3	-4.7	-4.2	-3.7	-3.3	-2.8	-2.7	-2.9	-3.0	-3.7	-3.5	-3.3	-3.1	-3.4	-2.7	-7.3	-4.8
20	-3.4	-3.8	-3.5	-3.3	-3.5	-3.5	-4.1	-3.9	-3.5	-3.7	-4.1	-3.6	-3.4	-2.7	-2.3	-1.6	-1.4	-1.2	-1.0	-0.8	-0.3	0.3	0.2	0.0	0.3	-4.1	-2.4
21	0.1	0.7	0.9	0.9	0.7	1.0	1.9	1.0	0.9	0.9	0.8	1.1	1.2	1.6	1.4	1.5	1.6	1.8	1.3	0.7	0.4	0.1	-0.3	-1.2	1.9	-1.2	0.9
22	-2.1	-2.9	-3.9	-5.4	-5.0	-5.9	-7.1	-7.0	-7.0	-5.6	-7.3	-7.7	-5.1	-4.4	-3.8	-3.2	-2.6	-2.8	-4.0	-5.1	-4.9	-4.5	-4.5	-4.9	-2.1	-7.7	-4.9
23	-5.4	-5.6	-5.6	-5.7	-5.7	-5.8	-5.5	-5.5	-5.6	-5.9	-5.4	-5.4	-5.3	-5.1	-4.7	-4.4	-4.2	-4.3	-4.9	-5.7	-6.1	-6.0	-4.9	-4.5	-4.2	-6.1	-5.3
24	-4.3	-4.0	-5.1	-5.9	-6.2	-5.9	-5.6	-5.3	-5.1	-5.0	-4.2	-3.0	-2.4	-1.0	-0.3	-0.3	-0.5	-0.7	-0.6	-0.8	-0.8	-0.7	-0.4	-0.2	-0.2	-6.2	-2.8
25	-0.4	-0.6	0.3	1.0	1.5	1.5	0.7	1.1	1.3	1.2	1.3	1.3	1.7	1.5	1.4	1.2	0.8	0.6	0.8	0.9	0.4	0.4	0.4	0.7	1.7	-0.6	0.9
26	0.8	1.0	1.1	1.0	1.0	0.9	0.4	0.2	0.9	1.1	1.4	1.2	1.4	1.7	2.0	2.1	2.1	2.2	2.2	2.0	1.8	1.7	1.7	1.6	2.2	0.2	1.4
27	1.2	1.4	1.3	0.9	1.0	1.1	1.1	1.3	0.1	1.0	1.2	1.6	1.7	2.2	2.2	1.3	0.9	1.5	1.6	1.8	1.7	1.9	2.2	2.3	2.3	0.1	1.4
28	1.7	1.4	1.3	1.4	1.5	1.3	1.3	0.9	0.1	0.2	0.2	0.3	0.5	0.6	0.8	0.8	0.7	0.8	0.5	0.3	0.0	-0.1	0.0	0.5	1.7	-0.1	0.7
29	0.6	0.6	0.7	0.7	0.7	0.7	0.8	1.1	1.4	1.9	2.3	2.6	2.6	2.9	2.4	2.5	2.8	2.6	2.4	2.1	2.2	1.0	0.6	0.7	2.9	0.6	1.6
30	0.9	1.2	1.1	0.6	0.8	0.9	0.4	0.3	0.2	-0.1	-0.3	-0.3	-0.2	0.1	0.0	-0.3	-0.5	-0.8	-0.9	-1.0	-1.1	-0.8	-0.8	-0.9	1.2	-1.1	-0.1
31	-1.2	-1.3	-1.5	-1.3	-1.6	-1.7	-1.8	-1.4	-1.0	-1.0	-1.3	-1.2	-0.9	-0.7	-0.5	-0.5	-0.4	-0.7	-1.5	-1.8	-1.7	-1.4	-1.6	-1.0	-0.4	-1.8	-1.2
Max.	3.2	3.0	2.8	2.6	2.7	2.8	2.8	2.7	2.4	2.5	2.6	2.9	3.5	4.0	4.4	4.8	5.2	4.9	3.6	3.5	3.1	3.0	3.1	2.7	5.2		
Min.	-7.3	-6.8	-6.9	-7.2	-7.7	-7.8	-8.2	-8.5	-8.8	-9.0	-8.8	-8.0	-6.7	-6.4	-5.8	-5.4	-5.4	-5.5	-5.8	-5.9	-6.1	-6.4	-6.8	-7.2		-9.0	
Avg.	-1.9	-2.0	-2.1	-2.3	-2.4	-2.5	-2.6	-2.6	-2.7	-2.7	-2.6	-2.2	-1.8	-1.3	-1.0	-0.7	-0.6	-0.7	-1.0	-1.3	-1.5	-1.7	-1.7	-1.9			-1.8

Total Hours in Month

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

Day	November 2007																														Max.	Min.	Avg.			
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300												
1	-1.0	-0.2	-0.4	-0.4	0.2	0.4	0.6	0.3	0.1	-0.4	-0.6	-0.5	-0.3	-0.3	0.3	0.2	0.0	-1.1	-1.9	-2.5	-2.8	-3.1	-3.3	-3.5	0.6	-3.5	-0.8									
2	-3.7	-3.8	-3.9	-4.4	-4.1	-4.2	-4.2	-4.8	-5.1	-4.8	-4.6	-4.5	-4.7	-4.8	-5.3	-5.6	-5.1	-4.9	-5.2	-5.5	-5.3	-5.3	-5.2	-5.2	-3.7	-5.6	-4.8									
3	-5.1	-5.0	-5.1	-5.3	-5.1	-5.0	-5.1	-5.2	-5.2	-5.3	-5.3	-5.0	-4.7	-4.5	-4.4	-4.0	-4.0	-4.2	-4.4	-4.7	-4.2	-3.9	-3.4	-2.8	-2.8	-5.3	-4.6									
4	-2.7	-2.5	-1.9	-1.5	-1.2	-0.9	-0.8	-0.7	-0.6	-0.4	-0.2	-0.2	-0.2	0.2	0.1	-0.1	-0.1	0.2	0.3	0.2	0.3	0.4	0.3	-0.1	0.4	-2.7	-0.5									
5	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.7	-0.8	-0.9	-0.9	-0.8	-0.7	-0.7	-0.6	-0.4	-0.3	-0.3	-0.5	-0.3	-0.3	-0.3	-0.4	-0.1	-0.3	-0.1	-0.9	-0.5									
6	-0.2	0.1	0.1	0.1	0.3	0.3	0.5	0.9	0.8	0.9	1.1	1.1	1.3	1.7	2.0	2.1	2.2	1.9	1.5	1.2	0.8	0.2	-0.3	-0.7	2.2	-0.7	0.8									
7	-0.6	-0.3	-0.5	-0.4	-0.2	-0.1	-0.1	-0.1	0.3	0.4	0.5	0.8	1.1	1.0	0.5	0.4	0.6	0.4	-0.4	-0.8	-0.9	-1.0	-1.0	-1.1	1.1	-1.1	-0.1									
8	-1.0	-1.4	-1.9	-2.0	-2.1	-1.9	-1.0	0.2	0.4	-0.1	0.1	0.7	0.6	0.7	1.4	1.4	1.8	2.1	1.6	1.5	1.1	0.2	-0.1	-0.1	2.1	-2.1	0.1									
9	-0.1	-0.7	-0.7	-0.6	-0.6	-0.6	-0.8	-1.1	-1.1	-1.2	-1.1	-0.8	-0.6	-0.2	-0.1	-0.1	-0.2	-0.4	-1.3	-1.2	-1.0	-1.5	-1.2	-1.6	-0.1	-1.6	-0.8									
10	-1.4	-1.6	-1.9	-2.3	-2.5	-2.4	-2.9	-3.3	-3.0	-3.0	-3.8	-3.9	-3.6	-3.2	-3.3	-3.5	-3.2	-3.4	-3.4	-4.0	-4.4	-4.1	-4.9	-5.1	-1.4	-5.1	-3.3									
11	-5.1	-5.3	-5.1	-5.0	-5.5	-6.2	-6.2	-6.5	-7.0	-7.5	-7.5	-7.3	-7.2	-7.4	-7.2	-7.3	-7.4	-7.6	-7.7	-8.0	-8.4	-8.7	-7.8	-7.3	-5.0	-8.7	-6.9									
12	-7.4	-7.2	-6.9	-6.2	-5.9	-5.6	-7.1	-8.1	-8.1	-7.6	-7.5	-6.7	-7.2	-7.4	-7.0	-6.6	-6.3	-6.0	-6.0	-5.7	-5.0	-4.5	-4.1	-3.8	-3.8	-8.1	-6.4									
13	-3.4	-3.4	-3.2	-3.1	-3.0	-2.7	-2.6	-2.5	-2.3	-2.3	-2.0	-1.5	-2.4	-2.5	-2.0	-2.9	-3.0	-3.0	-2.7	-2.6	-2.7	-2.6	-2.4	-2.2	-1.5	-3.4	-2.6									
14	-2.3	-2.3	-2.4	-2.4	-2.5	-2.5	-2.8	-3.1	-3.4	-3.5	-3.2	-3.2	-3.1	-3.2	-3.2	-3.2	-3.3	-3.3	-3.3	-4.0	-4.5	-4.2	-3.9	-3.6	-4.3	-2.3	-4.5	-3.2								
15	-4.9	-4.7	-4.8	-4.6	-6.2	-7.2	-7.6	-8.1	-9.0	-10.0	-11.3	-11.2	-11.6	-12.2	-12.1	-12.0	-12.1	-12.4	-12.4	-13.0	-12.8	-13.3	-13.9	-13.6	-4.6	-13.9	-10.0									
16	-12.8	-12.8	-12.8	-12.8	-12.7	-12.8	-13.0	-13.3	-13.4	-13.5	-13.5	-13.4	-13.3	-13.3	-13.2	-13.2	-13.2	-13.1	-13.0	-13.0	-13.4	-13.7	-13.8	-14.2	-12.7	-14.2	-13.2									
17	-14.7	-14.8	-14.9	-14.8	-15.0	-15.0	-15.1	-15.3	-15.3	-15.4	-15.5	-15.6	-15.5	-15.4	-15.1	-15.0	-15.4	-15.5	-16.4	-16.6	-17.0	-17.0	-17.2	-17.5	-14.7	-17.5	-15.6									
18	-17.7	-17.4	-17.4	-17.0	-16.9	-17.6	-16.9	-16.8	-16.5	-15.5	-15.4	-15.8	-16.0	-15.3	-15.4	-15.0	-14.3	-13.4	-13.3	-12.1	-10.8	-10.9	-10.9	-10.9	-10.8	-17.7	-15.0									
19	-10.8	-11.3	-11.6	-11.0	-10.6	-10.2	-10.1	-8.5	-9.2	-9.7	-9.3	-8.7	-7.8	-6.4	-5.8	-5.8	-5.4	-5.0	-4.4	-4.0	-4.0	-3.7	-3.1	-2.5	-2.5	-11.6	-7.5									
20	-2.1	-1.8	-1.6	-1.1	-0.8	0.1	2.1	2.2	2.9	3.0	3.0	2.6	2.4	2.4	2.0	2.6	3.1	3.4	2.7	1.5	1.2	1.3	1.8	1.9	3.4	-2.1	1.4									
21	1.9	1.8	0.9	0.7	0.9	0.3	1.0	1.4	1.4	1.8	2.0	1.6	1.5	1.6	1.8	2.0	2.3	2.4	2.2	2.2	2.3	2.2	1.8	2.0	2.4	0.3	1.7									
22	2.0	1.9	1.7	1.5	0.2	-0.2	0.1	0.1	-0.2	0.6	1.1	1.2	0.7	1.0	0.8	1.3	1.5	1.6	2.2	2.3	2.1	1.7	1.0	-0.7	2.3	-0.7	1.1									
23	-1.2	-1.1	-0.8	-1.0	-1.2	-1.6	-1.7	-1.8	-2.1	-2.3	-2.6	-2.8	-3.2	-3.6	-3.6	-3.9	-3.7	-3.6	-3.9	-3.4	-3.5	-4.4	-5.6	-6.4	-0.8	-6.4	-2.9									
24	-6.3	-6.2	-6.3	-6.4	-6.6	-6.5	-6.7	-6.9	-6.9	-6.7	-6.8	-6.3	-5.2	-3.9	-2.7	-2.2	-1.7	-1.4	-1.2	-0.9	-0.7	-0.4	-0.2	0.2	0.2	-6.9	-4.1									
25	-0.1	0.0	-0.1	0.3	0.9	1.7	2.0	2.0	1.8	2.2	3.3	3.2	1.8	2.8	3.1	3.3	3.6	3.9	3.3	2.9	3.5	3.4	3.5	3.4	3.9	-0.1	2.3									
26	2.9	2.8	3.1	3.0	2.9	3.3	3.2	2.9	2.6	1.7	1.6	1.0	0.8	0.6	0.7	0.8	0.9	0.8	0.6	0.3	0.0	0.0	0.8	1.1	3.3	0.0	1.6									
27	1.2	1.3	1.2	1.3	1.4	1.4	1.3	1.4	1.3	1.5	1.6	1.8	1.8	1.7	1.7	1.9	2.0	1.9	1.8	1.6	1.4	1.1	1.1	1.2	2.0	1.1	1.5									
28	1.0	1.0	0.9	0.6	0.7	0.7	0.4	0.5	0.6	0.1	-0.3	-0.2	-0.1	0.0	0.4	0.8	1.0	1.3	1.4	1.4	1.4	1.6	1.6	1.6	1.6	-0.3	0.8									
29	1.5	1.6	1.7	1.7	1.7	1.5	1.5	1.7	1.9	2.0	2.0	1.9	2.2	2.3	2.4	2.4	2.4	2.3	2.1	2.1	2.2	2.3	2.3	2.4	2.4	1.5	2.0									
30	2.6	2.8	2.9	3.1	3.1	3.2	3.5	3.7	3.9	3.8	3.6	4.1	4.5	4.5	4.4	4.4	4.5	4.4	4.4	4.3	4.2	4.5	4.0	3.6	4.5	2.6	3.8									
Max.	2.9	2.8	3.1	3.1	3.1	3.3	3.5	3.7	3.9	3.8	3.6	4.1	4.5	4.5	4.4	4.4	4.5	4.4	4.4	4.3	4.2	4.5	4.0	3.6	4.5											
Min.	-17.7	-17.4	-17.4	-17.0	-16.9	-17.6	-16.9	-16.8	-16.5	-15.5	-15.5	-15.8	-16.0	-15.4	-15.4	-15.0	-15.4	-15.5	-16.4	-16.6	-17.0	-17.0	-17.2	-17.5	-17.7											
Avg.	-3.1	-3.0	-3.1	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.1	-3.1	-2.9	-3.0	-2.8	-2.7	-2.6	-2.4	-2.4	-2.4	-2.6	-2.7	-2.7	-2.8	-2.9	-2.9											
Total Hours in Month	720																														Data Recovery			100.0%		
Hours Data Available	720																														Data Recovery			100.0%		

HCG, Inc.

Pebble 1 Meteorological Station - Temperature at 10 meters (deg. C)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	3.3	3.7	3.0	2.8	2.7	2.4	1.9	1.7	1.0	1.4	1.7	1.7	0.4	0.3	0.3	0.3	-0.1	0.1	0.2	0.2	0.2	-0.2	0.5	-0.4	-0.7	3.7	-0.7	1.2
2	-1.0	-1.7	-2.0	-3.1	-3.6	-3.9	-5.1	-4.4	-4.2	-3.3	-2.4	-2.8	-1.5	-1.0	0.5	-0.3	-0.6	-2.8	-3.0	-3.4	-3.7	-3.9	-3.6	-4.4	0.5	-5.1	-2.7	
3	-4.5	-4.9	-4.8	-4.6	-5.1	-5.4	-5.7	-5.8	-5.7	-5.5	-5.5	-5.8	-6.2	-6.3	-6.2	-6.2	-6.7	-7.1	-7.6	-8.4	-8.7	-8.8	-9.5	-9.2	-4.5	-9.5	-6.4	
4	-9.5	-9.0	-8.9	-8.6	-7.7	-7.9	-8.0	-7.2	-7.0	-6.7	-6.9	-6.9	-6.7	-6.5	-6.0	-5.4	-5.3	-5.3	-5.2	-5.0	-4.9	-4.7	-4.5	-4.3	-4.3	-9.5	-6.6	
5	-4.2	-4.1	-4.0	-3.9	-3.7	-3.7	-3.7	-3.7	-3.7	-3.7	-3.4	-3.0	-2.2	-1.6	-1.3	-1.2	-1.0	-0.9	-0.7	-0.6	-0.5	-0.6	-0.5	-0.6	-0.5	-4.2	-2.4	
6	-0.9	-0.7	-0.8	-0.8	-0.6	-0.8	-0.6	-0.4	-0.4	-0.4	-0.4	-0.6	-0.7	-0.8	-0.8	-1.1	-1.5	-1.5	-1.7	-1.5	-1.2	-1.2	-1.2	-1.3	-0.4	-1.7	-0.9	
7	-1.4	-1.2	-1.2	-1.3	-1.3	-1.4	-1.6	-1.6	-2.0	-2.3	-2.4	-2.3	-1.4	-1.4	-1.3	-1.0	-0.9	-0.7	-0.7	-0.5	-0.3	0.1	0.1	-0.1	0.1	-2.4	-1.2	
8	-0.2	-0.2	-0.4	-0.6	-0.9	-0.6	-0.7	-0.3	0.2	0.6	0.7	0.8	0.9	0.6	-0.1	-0.5	-0.5	-0.9	-1.6	-2.1	-1.8	-1.8	-1.6	-1.6	0.9	-2.1	-0.5	
9	-1.9	-1.6	-1.7	-1.5	-1.5	-1.6	-1.9	-2.2	-2.4	-1.9	-1.3	-0.3	0.0	0.3	0.5	0.8	0.9	0.9	1.0	0.8	0.6	0.6	0.6	0.6	1.0	-2.4	-0.5	
10	0.5	0.8	0.9	1.3	1.6	0.7	-0.1	-0.4	-0.5	-0.8	-0.5	-0.7	-1.3	-1.2	-1.6	-1.8	-1.9	-1.8	-1.7	-1.5	-1.4	-1.5	-1.9	-2.3	1.6	-2.3	-0.7	
11	-2.6	-2.9	-3.0	-3.5	-3.5	-3.5	-3.8	-4.0	-3.7	-3.8															-2.6	-4.0	-3.4	
12																												
13																			-8.8	-9.2	-10.3	-11.1	-11.9	-12.9	-8.8	-12.9	-10.7	
14	-13.4	-14.6	-14.8	-14.4	-14.2	-13.9	-14.7	-15.6	-16.0																-13.4	-16.0	-14.6	
15	-15.4	-15.7	-14.6	-13.5	-13.2	-13.4	-13.6	-13.7	-14.1	-13.7	-13.7	-13.9	-13.8	-13.7	-13.7	-13.9	-13.8	-13.7	-13.7	-13.7	-13.7	-13.7	-13.6	-13.6	-13.2	-15.7	-13.9	
16	-14.0	-14.8	-15.2	-15.6	-15.7	-16.0	-16.0	-16.1	-16.1	-16.3	-16.7	-16.9	-17.0	-17.2	-17.4	-17.6	-18.0	-18.1	-18.1	-18.0	-17.8	-17.9	-18.2	-18.4	-14.0	-18.4	-16.8	
17	-18.7	-18.8	-18.8	-18.8	-18.7	-18.8	-18.9	-18.8	-18.8	-18.7	-18.7	-18.9	-18.9	-18.8	-18.8	-19.1	-19.5	-19.8	-20.2	-20.5	-20.6	-20.9	-21.2	-21.5	-18.7	-21.5	-19.4	
18	-21.5	-21.8	-22.0	-22.1	-22.2	-22.2	-22.6	-22.8	-22.7	-22.9	-23.2	-23.5	-23.9	-24.1	-23.9	-23.8	-23.7	-24.2	-24.6	-24.5	-24.6	-25.2	-25.8	-25.9	-21.5	-25.9	-23.5	
19	-26.1	-26.6	-26.4	-26.3	-25.9	-25.2	-25.2	-26.4	-26.1	-25.7	-26.0	-25.8	-25.8	-25.7	-25.4	-25.7	-26.0	-26.2	-25.9	-26.3	-27.1	-26.5	-26.0	-24.9	-24.9	-27.1	-26.0	
20	-24.9	-22.6	-22.2	-21.7	-21.3	-19.6	-17.5	-16.9	-15.8	-14.6	-13.9	-13.4	-11.7	-10.6	-9.6	-8.7	-8.0	-7.4	-7.2	-6.5	-6.2	-6.1	-5.8	-5.7	-5.7	-24.9	-13.2	
21	-5.2	-3.9	-3.4	-3.1	-3.0	-3.1	-3.2	-3.7	-4.3	-4.7	-4.9	-4.7	-4.7	-4.8	-4.6	-5.1	-4.8	-4.6	-4.8	-4.6	-4.5	-4.4	-4.6	-4.0	-3.0	-5.2	-4.3	
22	-3.6	-3.3	-3.0	-3.1	-2.9	-2.9	-2.7	-2.9	-3.2	-2.8	-2.2	-2.3	-2.1	-2.0	-1.8	-2.1	-1.9	-2.2	-2.1	-1.9	-1.8	-3.2	-5.1	-5.6	-1.8	-5.6	-2.8	
23	-6.6	-8.6	-9.6	-10.0	-10.3	-10.6	-11.4	-12.1	-12.7	-12.6	-11.9	-11.9	-11.7	-11.8	-12.3	-12.5	-12.7	-12.4	-12.1	-12.0	-12.1	-12.2	-12.3	-12.7	-6.6	-12.7	-11.5	
24	-12.8	-13.1	-13.2	-13.7	-14.3	-14.7	-15.0	-15.7	-15.6	-15.6	-15.6	-15.3	-15.0	-14.9	-15.1	-15.3	-15.2	-15.1	-15.5	-15.9	-15.7	-15.2	-15.4	-15.6	-12.8	-15.9	-14.9	
25	-16.3	-17.1	-17.4	-17.6	-17.6	-17.9	-18.2	-18.5	-19.0	-19.5	-20.3	-20.4	-20.6	-20.6	-20.5	-20.4	-20.6	-20.5	-19.9	-19.7	-19.4	-19.5	-20.1	-20.5	-16.3	-20.6	-19.2	
26	-20.2	-20.4	-20.6	-19.5	-18.4	-17.0	-15.8	-17.2	-15.3	-12.7	-11.8	-12.2	-12.3	-11.1	-9.8	-8.2	-6.3	-4.7	-4.6	-5.4	-5.3	-4.6	-4.3	-3.8	-3.8	-20.6	-11.7	
27	-3.3	-3.0	-2.6	-2.2	-1.9	-1.6	-1.2	-0.7	-0.3	-0.5	-0.4	-0.2	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-1.7	-2.2	-1.7	-1.7	-2.1	-0.1	-3.3	-1.3	
28	-2.2	-3.8	-6.0	-6.8	-6.9	-7.5	-7.3	-7.6	-6.8	-7.1	-8.1	-7.9	-8.2	-8.4	-8.8	-9.0	-9.6	-9.9	-10.5	-10.7	-10.6	-10.5	-10.1	-10.1	-2.2	-10.7	-8.1	
29	-10.4	-10.7	-10.7	-10.7	-11.1	-11.4	-11.5	-11.5	-11.1	-11.9	-11.4	-10.6	-11.4	-11.4	-11.7	-12.8	-12.6	-11.9	-11.6	-11.2	-11.0	-10.9	-10.8	-10.8	-10.4	-12.8	-11.3	
30	-10.9	-11.0	-11.2	-11.2	-11.4	-11.6	-12.2	-12.1	-12.6	-12.9	-13.5	-13.7	-13.3	-13.4	-13.5	-13.0	-12.4	-12.8	-13.0	-13.2	-13.1	-12.6	-12.5	-12.1	-10.9	-13.7	-12.5	
31	-11.8	-11.7	-11.3	-11.1	-11.3	-11.6	-11.7	-12.1	-12.5	-12.8	-12.9	-12.7	-12.7	-12.4	-12.5	-12.4	-12.1	-12.2	-12.1	-11.1	-11.5	-12.0	-12.9	-11.4	-11.1	-12.9	-12.0	
Max.	3.3	3.7	3.0	2.8	2.7	2.4	1.9	1.7	1.0	1.4	1.7	1.7	0.9	0.6	0.5	0.8	0.9	0.9	1.0	0.8	0.6	0.6	0.6	0.6	3.7			
Min.	-26.1	-26.6	-26.4	-26.3	-25.9	-25.2	-25.2	-26.4	-26.1	-25.7	-26.0	-25.8	-25.8	-25.7	-25.4	-25.7	-26.0	-26.2	-25.9	-26.3	-27.1	-26.5	-26.0	-25.9		-27.1		
Avg.	-9.0	-9.1	-9.2	-9.1	-9.1	-9.1	-9.2	-9.4	-9.4	-9.0	-9.1	-9.0	-9.0	-8.8	-8.7	-8.8	-8.7	-8.7	-8.8	-8.9	-8.9	-8.9	-9.1	-9.1		-9.1	-9.1	

Total Hours in Month

Hours Data Available

673

Data Recovery

90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

Day	January 2007																								Max.	Min.	Avg.
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300			
1	1.0	0.81	0.94	0.90	0.99	0.91	1.05	1.29	0.75	0.52	0.64	0.70	1.15	0.84	0.64	0.56	1.14	1.03	1.25	1.76	1.55	1.42	1.40	1.27	1.76	0.52	1.02
2	1.5	0.98	1.08	1.56	0.73	1.34	1.18	1.21	1.87	1.04	0.86	1.44	1.13	0.82	1.25	1.46	1.45	1.07	1.11	1.28	1.36	1.33	1.35	1.36	1.87	0.73	1.24
3	1.3	0.99	0.95	0.94	0.88	0.70	0.54	0.96	1.01	0.67	0.75	0.60	0.40	0.32	0.21	0.20	0.32	0.62	0.75	1.08	1.14	1.18	1.28	0.87	1.28	0.20	0.78
4	1.5	1.47	1.32	0.98	1.08	1.12	1.32	1.14	1.38	1.05	1.19	0.98	0.92	1.23	1.29	0.96	0.98	1.36	1.12	0.83	0.35	0.21	0.30	0.56	1.50	0.21	1.03
5	0.6	0.37	0.92	1.39	1.14	1.20	1.46	1.72	1.51	1.65	1.57	0.62	0.75	1.21	1.28	1.23	1.68	1.61	1.63	1.40	1.05	1.19	0.94	0.93	1.72	0.37	1.21
6	0.9	1.06	0.88	0.79	0.83	1.12	1.49	1.17	1.11	1.00	1.03	1.18	1.21	1.12	1.45	1.26	1.26	1.01	0.98	0.88	0.75	0.77	0.74	0.61	1.49	0.61	1.02
7	0.6	0.61	0.60	0.40	0.55	0.45	0.32	0.31	0.37	0.46	0.39	0.46	0.50	0.37	0.44	0.33	0.54	0.78	0.75	0.67	0.70	0.74	0.78	0.78	0.78	0.31	0.54
8	1.0	0.83	0.91	0.80	0.50	0.40	0.80	0.93	1.13	1.29	1.43	1.30	1.36	1.26	1.16	0.87	0.73	0.95	0.82	0.99	0.99	1.03	0.81	1.27	1.43	0.40	0.98
9	1.5	1.60	1.96	2.42	1.75	1.20	1.68	2.07	2.29	2.21	2.41	1.77	0.53	0.71	0.83	0.89	0.72	0.95	1.05	1.00	0.95	0.62	0.45	0.27	2.42	0.27	1.32
10	0.4	0.31	0.16	0.24	0.24	0.20	0.15	0.19	0.14	0.12	0.10	0.06	0.00	0.02	0.02	0.00	0.00	0.00	-0.01	-0.01	0.00	-0.03	-0.09	-0.08	0.38	-0.09	0.09
11	-0.1	-0.04	-0.03	-0.03	-0.07	-0.06	-0.06	-0.06	-0.07	-0.08	-0.12	-0.16	-0.15	-0.19	-0.19	-0.18	-0.21	-0.21	-0.23	-0.23	-0.21	-0.22	-0.23	-0.24	-0.03	-0.24	-0.14
12	-0.2	-0.16	-0.12	-0.12	-0.12	-0.13	-0.13	-0.16	-0.15	-0.14	-0.16	-0.17	-0.13	-0.15	-0.15	-0.20	-0.16	-0.18	-0.21	-0.18	-0.20	-0.16	-0.12	-0.10	-0.10	-0.21	-0.15
13	0.0	0.05	0.04	0.00	-0.09	-0.13	-0.13	-0.11	-0.12	-0.13	-0.14	-0.16	-0.14	-0.11	0.09	-0.08	-0.03	0.31	0.56	1.53	0.76	0.71	0.91	1.09	1.53	-0.16	0.20
14	1.5	1.50	1.30	1.57	0.88	0.56	0.72	0.61	0.45	0.39	0.12	0.02	0.01	0.08	0.49	0.56	0.58	0.27	0.28	0.14	0.25	0.42	0.65	0.16	1.57	0.01	0.56
15	0.2	0.48	0.66	1.28	1.51	0.97	0.28	0.07	-0.03	-0.06	0.01	-0.04	0.02	0.50	0.08	-0.06	0.12	0.17	0.30	0.79	1.09	0.97	0.90	1.22	1.51	-0.06	0.47
16	1.2	0.93	0.17	0.39	0.28	0.79	0.70	1.12	1.15	0.67	0.38	0.38	0.15	0.03	0.02	0.15	0.20	0.22	0.22	0.17	0.08	-0.01	-0.07	-0.04	1.22	-0.07	0.39
17	0.0																								-0.02	-0.02	-0.02

Max.	1.5	1.60	1.96	2.42	1.75	1.34	1.68	2.07	2.29	2.21	2.41	1.77	1.36	1.26	1.45	1.46	1.68	1.61	1.63	1.76	1.55	1.42	1.40	1.36	2.42		
Min.	-0.2	-0.16	-0.12	-0.12	-0.12	-0.13	-0.13	-0.16	-0.15	-0.14	-0.16	-0.17	-0.15	-0.19	-0.19	-0.20	-0.21	-0.21	-0.21	-0.23	-0.23	-0.21	-0.22	-0.23	-0.24	-0.24	
Avg.	0.7	0.74	0.73	0.84	0.69	0.66	0.71	0.78	0.80	0.67	0.65	0.56	0.48	0.50	0.56	0.50	0.58	0.62	0.65	0.76	0.66	0.64	0.62	0.62	0.62	0.62	0.62

Total Hours in Month 744 Hours Data Available 385 Data Recovery 51.7%

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

February 2007

Max. Min. Avg.

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300

Day

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Max.

Min.

Avg.

Total Hours in Month

672

Hours Data Available

0

Data Recovery

0.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Max.
Min.
Avg.

Total Hours in Month

744

Hours Data Available

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Data Recovery

0.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Data Recovery																											

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Total Hours in Month

744

Hours Data Available

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Data Recovery

0.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
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Avg.																											
Total Hours in Month																											

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	0.6	0.33	0.25	0.56	0.38	0.39	0.27	0.27	0.01	-0.22	-0.28	-0.33	-0.32	-0.26	-0.29	-0.34	-0.39	-0.35	-0.20	-0.17	0.19	0.32	0.37	0.42	0.60	-0.39	0.05	
2	0.2	0.06	0.05	0.04	0.01	0.01	0.04	0.02	-0.01	-0.10	-0.24	-0.39	-0.56	-0.37	2.61	1.16	0.18	-0.02	-0.20	-0.07	0.01	0.03	0.03	0.02	2.61	-0.56	0.11	
3	0.1	0.06	0.06	0.06	0.05	0.05	0.06	0.05								-0.07	-0.09	-0.25	-0.31	-0.27	-0.27	-0.29	-0.10	0.14	0.14	-0.31	-0.06	
4	0.2	0.27	0.27	0.23	0.34	0.35	0.30	0.58	0.25	-0.03	-0.21	-0.24	-0.23	-0.48	-0.63	-0.73	-0.59	-0.32	-0.41	-0.14	0.22	0.58	0.48	0.49	0.58	-0.73	0.02	
5	1.0	1.14	0.90	0.57	1.01	0.89	0.98	0.77	0.37	0.06		-0.69	-0.69	-0.76	-1.08	-0.94	-0.32	0.02	0.20	0.40	0.34	0.51	0.42	0.23	1.14	-1.08	0.23	
6	0.1	0.35	0.32	0.34	0.21	0.32	0.26	0.06	-0.04	-0.20	-0.32	-0.43	-0.51	-0.68	-0.81	-0.53	-0.60	-0.41	-0.20	0.00	0.12	0.15	0.04	-0.01	0.35	-0.81	-0.10	
7	0.0	-0.02	0.00	0.05	0.14	0.20	0.19	0.13	0.07	-0.15	-0.02	0.00	-0.02	-0.13	-0.10	-0.12	-0.13	-0.07	-0.05	-0.04	-0.01	0.01	0.01	-0.01	0.20	-0.15	0.00	
8	0.0	-0.02	-0.01	0.00	-0.02	-0.01	0.00	0.01	0.01	-0.03	-0.04	-0.05	-0.10	-0.15	-0.16	-0.14	-0.16	-0.15	-0.08	-0.04	-0.03	-0.02	0.00	0.00	0.01	-0.16	-0.05	
9	0.0	0.03	0.04	0.09	0.13	0.13	0.11	0.06	0.00	-0.04	-0.15	-0.18	-0.17	-0.24	-0.36	-0.39	-0.40	-0.24	-0.14	-0.16	0.07	0.60	0.75	0.41	0.75	-0.40	0.00	
10	0.3	0.36	0.48	0.22	0.29	0.35	0.16	0.16	0.18	-0.01	-0.37	-0.60	-0.58	-0.48	-0.43	-0.54	-0.46	-0.21	-0.13	0.07	0.14	0.15	0.17	0.15	0.48	-0.60	-0.03	
11	0.2	0.20	0.14	0.08	0.04	0.02	0.03	0.03	-0.03	-0.19	-0.18	0.01	0.01	-0.05	-0.08	-0.09	-0.06	-0.02	-0.04	-0.05	-0.03	0.01	0.03	0.05	0.20	-0.19	0.00	
12	0.0	0.01	0.00	-0.01	-0.02	-0.03	-0.03	-0.04	-0.05	-0.12	-0.25	-0.29	-0.54	-0.85	-0.83	-0.76	-0.62	-0.22	-0.18	-0.02	0.12	0.19	0.05	0.06	0.19	-0.85	-0.18	
13	0.1	0.08	0.00	0.00	-0.01	-0.02	0.00	0.02	-0.04	-0.09	-0.17	-0.19	-0.38	-0.51	-0.34	-0.32	-0.24	-0.07	-0.07	0.00	0.02	-0.03	-0.01	0.04	0.08	-0.51	-0.09	
14	0.1	0.08	0.05	-0.01	0.03	0.09	0.22	0.33	0.09	-0.20	-0.22	-0.24	-0.29	-0.43	-0.45	-0.64	-0.47	-0.38	-0.10	0.10	0.69	0.98	0.62	1.04	1.04	-0.64	0.04	
15	0.7	0.61	0.75	0.69	0.75	0.65	0.70	0.59	0.49	-0.13	-0.36	-0.54	-0.69	-0.79	-0.45	-0.40	-0.46	-0.69	-0.58	0.13	0.85	1.22	0.25	0.15	1.22	-0.79	0.14	
16	0.1	0.00	0.08	0.36	0.16	0.48	0.73	1.07	0.77	-0.01	-0.51	-0.40	-0.52	-0.70	-0.76	-0.57	-0.57	-0.44	-0.35	-0.26	0.23	0.23	0.07	0.03	1.07	-0.76	-0.03	
17	0.0	0.03	0.07	0.13	0.14	0.02	0.05	0.07	0.04	-0.08	-0.12	-0.19	-0.16	-0.37	-0.43	-0.64	-0.50	-0.34	-0.25	0.08	0.24	0.28	0.35	0.22	0.35	-0.64	-0.06	
18	0.2	0.22	0.07	0.02	0.05	0.04	0.07	0.09	0.09	0.07	0.05	-0.05	-0.11	-0.07	-0.03	-0.05	-0.05	-0.03	0.00	-0.02	-0.04	-0.03	0.00	0.00	0.22	-0.11	0.02	
19	0.0	0.12	0.07	0.06	0.17	0.13	0.03	0.04	0.03	-0.06	-0.05	-0.10	-0.17	-0.17		-0.15	-0.13	-0.14	-0.07	-0.03	-0.03	-0.04	-0.04	-0.04	0.17	-0.17	-0.02	
20	0.0	-0.04	-0.04	-0.04	-0.04	-0.03	-0.05	-0.06	-0.06	-0.07	-0.09	-0.18	-0.23	-0.29	-0.40	-0.38	-0.32	-0.32	-0.11	0.14	0.40	0.12	0.10	0.14	0.40	-0.40	-0.08	
21	0.0	0.25	0.55	0.33	0.17	0.02	0.05	0.08	0.05	-0.06	-0.30	-0.39	-0.61	-0.59	-0.74	-0.34	-0.53	-0.41	-0.18	0.24	0.92	0.93	1.19	0.78	1.19	-0.74	0.06	
22	1.1	1.08	1.38	1.14	0.88	1.04	0.92	0.57	0.47	0.13	-0.04	-0.29	-0.27	-0.25	-0.13	-0.04	0.06	0.16	0.16	0.01	-0.03	-0.04	-0.01	-0.03	1.38	-0.29	0.33	
23	0.0	0.05	0.05	0.05	0.06	0.16	0.26	0.22	0.23	0.25	-0.17	-0.39	-0.41	-0.50	-0.27	-0.15	-0.13	-0.12	-0.10	-0.08	-0.04	-0.03	-0.02	-0.01	0.26	-0.50	-0.05	
24	0.0	0.00	-0.02	-0.01	0.16	0.16	0.20	0.12	-0.04	-0.10	-0.13	-0.25	-0.51	-0.38	-0.26	-0.21	-0.13	-0.04	-0.02	0.03	0.02	-0.04	-0.02	-0.05	0.20	-0.51	-0.06	
25	0.0	0.12	0.07	0.07	-0.04	-0.04	-0.03	0.03	0.02	0.01	-0.12	-0.47	-0.47	-0.45	-0.43	-0.39	-0.30	-0.23	-0.12	-0.09	0.00	0.05	0.06	0.00	0.12	-0.47	-0.11	
26	0.0	-0.03	-0.07	-0.08	-0.08	-0.06	-0.06	-0.08	-0.04	-0.09	-0.26	-0.38	-0.37	-0.26	-0.29	-0.28	-0.21	-0.33	-0.17	-0.03	0.18	0.31	0.40	0.68	0.68	-0.38	-0.07	
27	0.6	0.35	0.44	0.58	0.33	0.19	0.35	0.32	0.80	0.46	-0.23	-0.32	-0.42	-0.42	-0.47	-0.33	-0.29	-0.21	-0.07	0.02	0.06	0.07	0.13	0.01	0.80	-0.47	0.08	
28	0.0	0.00	-0.05	-0.05	-0.02	-0.01	0.02	0.00	-0.03	-0.05	-0.09	-0.12	-0.15	-0.16	-0.19	-0.30	-0.26	-0.25	-0.14	-0.03	0.21	0.27	0.28	0.46	0.46	-0.30	-0.03	
29	0.6	0.52	0.92	1.05	1.37	1.15	0.69	0.54	0.77	0.52	-0.27	-0.47	-0.32	-0.54	-0.52	-0.48	-0.43	-0.28	-0.18	-0.11	-0.01	0.08	0.03	0.05	1.37	-0.54	0.19	
30	0.1	0.07	-0.04	-0.05	-0.07	-0.07	-0.07	-0.06	-0.07	-0.09	-0.13	-0.15	-0.18	-0.23	-0.26	-0.22	-0.18	-0.21	-0.14	-0.06	0.01	-0.01	-0.02	-0.05	0.10	-0.26	-0.09	
Max.	1.1	1.14	1.38	1.14	1.37	1.15	0.98	1.07	0.80	0.52	0.05	0.01	0.01	-0.05	2.61	1.16	0.18	0.16	0.20	0.40	0.92	1.22	1.19	1.04	2.61			
Min.	0.0	-0.04	-0.07	-0.08	-0.08	-0.07	-0.07	-0.08	-0.07	-0.22	-0.51	-0.69	-0.69	-0.85	-1.08	-0.94	-0.62	-0.69	-0.58	-0.27	-0.27	-0.29	-0.10	-0.05		-1.08		
Avg.	0.2	0.21	0.23	0.22	0.22	0.22	0.21	0.20	0.15	-0.02	-0.19	-0.29	-0.34	-0.40	-0.31	-0.31	-0.29	-0.22	-0.14	-0.01	0.15	0.22	0.19	0.18			0.01	
Total Hours in Month																									720	Data Recovery		98.8%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	0.0	-0.02	-0.01	0.12	0.07	0.09	0.51	0.74	0.38	0.13	0.09	-0.30	-0.27	-0.39	-0.45	-0.42	-0.61	-0.19	-0.08	0.08	0.07	0.19	0.15	0.05	0.74	-0.61	0.00			
2	0.0	0.03	0.00	-0.07	-0.09	-0.08	-0.09	-0.06	-0.07	-0.10	-0.13	-0.20	-0.35	-0.33	-0.24	-0.25	-0.25	0.08	0.24	0.36	0.44	0.48	0.22	0.17	0.48	-0.35	-0.01			
3	0.1	0.06	0.02	0.00	0.01	-0.01	0.07	0.00	-0.02	-0.14	-0.29	-0.36	-0.55	-0.50	-0.51	-0.54	-0.37	-0.19	0.04	0.24	0.29	0.41	0.32	0.51	0.51	-0.55	-0.06			
4	0.6	0.26	0.28	0.34	0.27	0.17	0.15	0.13	0.12	0.01	-0.02	-0.05	-0.09	-0.10	-0.03	-0.04	-0.03	-0.06	-0.05	-0.01	0.01	0.01	0.07	0.07	0.56	-0.10	0.08			
5	0.0	0.04	0.01	0.02	0.02	0.03	0.01	0.00	-0.01	-0.01	0.02	0.00	0.01	0.09	0.16	0.12	0.09	0.04	0.02	0.12	0.16	0.11	0.36	0.32	0.36	-0.01	0.07			
6	0.2	0.18	0.05	-0.11	-0.11	-0.10	-0.10	-0.10	-0.13	-0.11	-0.13	-0.17	-0.17	-0.23	-0.29	-0.24	-0.13	-0.11	0.02	0.25	0.18	0.06	0.27	0.19	0.27	-0.29	-0.03			
7	0.2	0.15	0.19	0.18	0.14	0.01	0.02	0.09	0.13	0.10	0.03	-0.03	-0.11	-0.13	-0.08	-0.19	-0.22	-0.16	0.00	0.11	0.20	0.18	0.17	0.15	0.22	-0.22	0.05			
8	0.2	0.13	0.14	0.10	0.12	0.14	0.14	0.10	0.11	0.05	-0.10	-0.26	-0.25	-0.30	-0.30	-0.24	-0.16	-0.01	0.21	0.55	0.28	0.11	0.39	0.63	0.63	-0.30	0.07			
9	0.2	0.66	0.91	1.03	0.38	0.35	0.38	0.33	0.42	0.96	0.80	-0.01	-0.34	-0.68	-0.64	-0.55	-0.37	-0.10	0.45	0.73	0.76	0.38	0.33	0.47	1.03	-0.68	0.29			
10	0.6	1.24	0.46	0.05	0.16	0.16	0.15	-0.04	0.15	0.04	0.01	-0.13	-0.31	-0.34	-0.44	-0.37	-0.38	-0.20	0.17	0.43	0.49	0.66	0.70	0.68	1.24	-0.44	0.16			
11	0.7	1.04	1.02	0.73	0.86	0.50	0.43	0.44	0.63	0.41	-0.02	-0.08	-0.16	-0.19	-0.26	-0.25	-0.14	-0.04	0.00	0.03	0.06	0.08	0.10	0.07	1.04	-0.26	0.25			
12	0.1	0.09	0.09	0.17	0.15	0.16	0.26	0.18	0.41	0.29	0.47	0.09	-0.21	-0.32	-0.29	-0.34	-0.37	-0.11	0.20	0.96	0.60	0.54	0.43	0.23	0.96	-0.37	0.16			
13	0.2	0.08	0.00	-0.04	-0.01	-0.07	-0.13	-0.09	-0.05	-0.13	-0.28	-0.39	-0.49	-0.55	-0.70	-0.63	-0.54	-0.37	-0.02	0.24	0.19	-0.01	-0.07	-0.09	0.24	-0.70	-0.16			
14	-0.1	-0.04	-0.09	-0.09	-0.09	-0.11	-0.06	0.26	0.02	-0.08	-0.30	-0.32	-0.40	-0.40	-0.40	-0.17	-0.25	-0.13	-0.01	-0.03	0.09	0.92	1.11	0.65	1.11	-0.40	0.01			
15	0.3	0.30	0.23	0.15	0.20	0.48	0.63	1.18	0.72	0.36	0.19	0.09	0.23	-0.23	-0.18	-0.18	-0.02	0.23	0.48	0.53	0.35	0.45	0.55	0.90	1.18	-0.23	0.33			
16	0.7	0.83	0.79	0.48	0.99	1.22	1.08	0.82	0.99	0.63	0.22	-0.02	-0.32	-0.30	-0.38	-0.38	-0.29	-0.23	-0.16	-0.14	-0.12	-0.12	-0.11	-0.10	1.22	-0.38	0.25			
17	-0.1	-0.10	-0.11	-0.11	-0.12	-0.12	-0.12	-0.12	-0.11	-0.11	-0.10	-0.19	-0.21	-0.24	-0.31	-0.27	-0.19	-0.13	-0.09	-0.08	-0.08	-0.07	-0.02	0.08	0.08	-0.31	-0.13			
18	0.0	-0.06	0.06	0.07	-0.04	-0.04	-0.05	-0.05	-0.04	-0.05	-0.07	-0.16	-0.18	-0.22	-0.24	-0.21	-0.17	-0.13	-0.08	-0.06	-0.02	0.04	0.28	0.18	0.28	-0.24	-0.05			
19	0.4	0.14	0.00	0.12	0.72	0.52	0.54	0.52	0.50	0.64	0.86	0.84	0.31	0.01	0.09	0.14	0.18	0.32	0.35	0.38	0.24	0.11	0.21	0.37	0.86	0.00	0.36			
20	0.3	0.43	0.30	0.47	0.56	0.51	0.60	0.52	0.44	0.52	0.57	0.29	0.18	0.26	0.13	0.22	0.23	0.19	0.29	0.34	0.27	0.30	0.29	0.32	0.60	0.13	0.36			
21	0.3	0.42	0.34	0.36	0.33	0.41	0.41	0.22	0.30	0.36	0.37	0.29	0.10	0.04	0.09	0.16	0.26	0.71	0.70	0.73	0.69	1.09	1.35	1.16	1.35	0.04	0.47			
22	1.4	1.28	1.59	1.51	1.33	1.16	0.90	0.81	0.97	1.41	0.78	0.96	0.65	-0.06	-0.15	-0.20	-0.21	0.07	0.87	0.87	0.88	0.13	0.14	0.36	1.59	-0.21	0.73			
23	0.4	0.28	0.20	0.22	0.21	0.19	0.20	0.28	0.18	0.19	0.18	0.33	-0.02	-0.17	-0.14	-0.13	-0.09	-0.13	-0.05	0.67	0.83	0.62	1.14	0.48	1.14	-0.17	0.25			
24	0.4	0.51	0.14	0.06	-0.03	-0.03	0.00	0.01	0.05	0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.04	-0.05	-0.03	-0.02	-0.02	-0.04	-0.04	0.04	0.16	0.51	-0.05	0.04			
25	0.2	0.22	0.08	0.14	0.28	0.14	-0.02	0.06	0.05	-0.03	0.04	0.03	0.08	0.08	0.07	0.05	0.01	0.00	0.03	0.06	0.01	0.01	0.00	0.06	0.28	-0.03	0.07			
26	0.1	0.08	0.13	0.10	0.10	0.12	0.05	0.04	0.10	0.09	0.10	0.10	0.09	0.10	0.12	0.12	0.14	0.13	0.18	0.16	0.22	0.20	0.26	0.21	0.26	0.04	0.12			
27	0.2	0.17	0.14	0.05	0.09	0.11	0.15	0.15	-0.02	0.16	0.15	0.20	0.06	-0.01	0.10	0.04	0.04	0.10	0.22	0.29	0.29	0.31	0.35	0.23	0.35	-0.02	0.15			
28	0.2	0.24	0.27	0.26	0.42	0.27	0.27	0.49	0.44	0.49	0.06	-0.06	-0.09	-0.15	-0.18	-0.15	-0.08	-0.06	-0.02	0.00	-0.02	0.01	0.00	0.08	0.49	-0.18	0.11			
29	0.0	0.07	0.06	0.01	-0.01	-0.01	0.03	0.03	0.06	0.11	0.18	0.13	0.06	0.02	-0.01	0.07	0.10	0.16	0.16	0.17	0.07	-0.01	-0.02	0.05	0.18	-0.02	0.06			
30	0.1	0.14	0.07	0.02	0.02	0.07	0.03	0.04	0.02	-0.02	-0.04	-0.05	-0.05	0.01	0.05	0.00	0.01	0.02	0.03	0.01	0.03	0.02	0.01	0.00	0.14	-0.05	0.02			
31	0.0	0.08	0.01	0.06	0.05	0.26	0.19	-0.02	-0.01	0.01	-0.01	-0.02	-0.03	0.02	0.12	0.08	-0.03	0.13	0.30	0.13	0.22	0.16	-0.04	-0.03	0.30	-0.04	0.07			
Max.	1.4	1.28	1.59	1.51	1.33	1.22	1.08	1.18	0.99	1.41	0.86	0.96	0.65	0.26	0.16	0.22	0.26	0.71	0.87	0.96	0.88	1.09	1.35	1.16	1.59					
Min.	-0.1	-0.10	-0.11	-0.11	-0.12	-0.12	-0.13	-0.12	-0.13	-0.14	-0.29	-0.39	-0.55	-0.68	-0.70	-0.63	-0.61	-0.37	-0.16	-0.14	-0.12	-0.12	-0.11	-0.10		-0.70				
Avg.	0.3	0.29	0.24	0.21	0.22	0.21	0.21	0.21	0.22	0.20	0.12	0.02	-0.09	-0.17	-0.17	-0.15	-0.13	-0.01	0.14	0.26	0.25	0.24	0.29	0.28			0.13			
Total Hours in Month	744										Hours Data Available										Data Recovery									
	744										744										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0.0	0.02	-0.02	-0.03	0.01	0.00	0.03	0.02	0.02	-0.04	-0.06	-0.04	-0.02	-0.07	0.23	0.06	-0.01	-0.09	-0.13	-0.09	-0.08	-0.08	-0.08	-0.04	0.23	-0.13	-0.02
2	0.0	0.11	0.07	0.10	0.09	0.44	0.74	0.54	0.30	0.23	0.26	0.17	-0.07	-0.14	-0.09	0.08	-0.07	-0.02	0.05	0.05	0.07	0.04	0.07	0.08	0.74	-0.14	0.13
3	0.1	0.02	-0.01	0.02	0.01	-0.05	-0.03	0.13	0.15	0.31	0.42	0.11	0.30	0.31	0.28	0.13	0.09	0.50	0.72	0.28	0.20	0.09	0.07	0.09	0.72	-0.05	0.18
4	0.0	-0.12	-0.16	-0.21	-0.23	-0.23	-0.23	-0.24	-0.21	-0.23	-0.21	-0.19	-0.19	-0.05	-0.02	-0.04	-0.03	0.01	0.03	0.00	-0.01	0.01	-0.01	-0.03	0.03	-0.24	-0.11
5	-0.1	-0.05	-0.06	-0.05	-0.05	-0.06	-0.07	-0.06	-0.05	-0.05	-0.05	-0.05	-0.08	-0.08	-0.09	-0.08	-0.07	-0.06	-0.03	-0.03	-0.03	-0.02	0.21	0.27	0.27	-0.09	-0.03
6	0.2	0.12	0.10	0.11	0.16	0.23	0.28	0.34	0.40	0.41	0.31	0.22	0.22	0.19	0.12	0.10	0.15	0.10	0.09	0.07	0.08	-0.02	-0.07	-0.05	0.41	-0.07	0.16
7	0.0	-0.03	0.08	0.15	0.05	0.01	-0.02	0.00	0.03	-0.02	0.00	0.01	0.03	0.04	0.01	-0.01	0.04	0.09	-0.06	-0.04	0.00	-0.06	-0.03	-0.05	0.15	-0.06	0.01
8	-0.1	0.07	0.19	0.04	0.05	0.07	0.10	0.26	0.09	-0.06	0.02	0.01	-0.06	0.01	0.06	0.14	0.18	0.19	0.17	0.16	0.09	-0.04	-0.06	-0.06	0.26	-0.06	0.06
9	0.0	-0.10	-0.06	-0.06	-0.04	-0.03	0.17	0.21	0.25	0.21	0.16	0.10	0.04	0.07	0.21	0.27	0.43	0.58	0.69	0.38	0.45	0.55	0.54	0.72	0.72	-0.10	0.24
10	0.5	0.49	0.62	0.47	0.70	0.88	1.16	1.17	1.33	1.21	1.73	1.58	1.07	0.90	0.53	0.47	0.39	0.43	0.46	0.29	0.29	0.33	0.50	0.50	1.73	0.29	0.75
11	0.5	0.31	0.73	0.46	0.56	0.36	0.72	0.73	0.66	0.38	0.14	0.00	0.06	0.12	0.11	0.15	0.51	0.38	0.08	-0.03	-0.12	0.25	1.07	0.67	1.07	-0.12	0.37
12	0.4	0.51	0.98	0.90	1.01	0.65	0.71	0.28	0.21	0.58	0.87	0.98	0.17	-0.09	-0.10	-0.01	0.05	-0.02	-0.07	-0.04	-0.06	-0.07	-0.07	-0.07	1.01	-0.10	0.32
13	0.0	-0.06	-0.06	-0.05	-0.03	-0.04	-0.01	-0.03	-0.04	-0.03	0.08	0.52	-0.09	-0.07	-0.06	-0.08	-0.04	-0.03	-0.02	-0.01	-0.03	-0.04	-0.04	-0.05	0.52	-0.09	-0.01
14	-0.1	-0.06	-0.06	-0.06	-0.06	-0.06	-0.06	-0.03	0.14	0.03	0.33	0.30	-0.05	-0.06	0.00	0.00	0.29	0.33	0.45	0.45	0.33	0.88	0.76	0.97	0.97	-0.06	0.19
15	0.5	0.92	1.10	1.19	1.53	1.40	1.13	1.07	1.23	1.25	1.07	0.88	0.72	0.69	0.53	0.52	0.66	0.58	0.37	0.23	0.23	0.19	0.03	0.00	1.53	0.00	0.75
16	0.0	0.10	0.12	0.15	0.17	0.20	0.21	0.23	0.23	0.24	0.25	0.30	0.20	0.10	0.07	0.10	0.21	0.21	0.17	0.14	0.13	0.18	0.17	0.13	0.30	0.04	0.17
17	0.3	0.33	0.34	0.42	0.24	0.26	0.29	0.46	0.43	0.40	0.42	0.48	0.51	0.55	0.59	0.50	0.53	0.50	0.38	0.47	0.56	0.54	0.88	0.76	0.88	0.24	0.47
18	0.4	0.38	0.47	0.96	0.98	0.87	0.97	1.08	1.38	1.24	1.22	1.29	1.15	0.97	0.88	1.04	1.23	1.21	1.11	1.01	1.15	0.93	0.79	0.45	1.38	0.38	0.97
19	0.4	0.41	0.46	0.46	0.43	0.73	0.59	0.69	0.38	0.60	0.68	0.18	0.22	0.26	0.15	0.08	0.19	0.04	0.03	0.04	-0.03	-0.02	-0.03	-0.03	0.73	-0.03	0.29
20	0.0	-0.02	-0.02	-0.01	-0.01	0.19	0.60	0.27	0.32	0.27	0.29	0.21	0.20	0.20	0.17	0.27	0.44	0.46	0.36	0.15	0.14	0.14	0.23	0.30	0.60	-0.02	0.21
21	0.2	0.19	0.08	0.15	0.07	-0.02	0.10	0.15	0.14	0.19	0.21	0.20	0.18	0.19	0.25	0.23	0.28	0.28	0.23	0.23	0.25	0.27	0.23	0.23	0.28	-0.02	0.19
22	0.2	0.24	0.23	0.16	-0.04	-0.05	0.00	-0.02	-0.04	0.07	0.09	0.11	0.03	0.10	0.06	0.19	0.19	0.25	0.38	0.28	0.23	0.22	0.13	-0.15	0.38	-0.15	0.12
23	-0.1	-0.09	-0.07	-0.10	-0.10	-0.06	-0.09	-0.11	-0.10	-0.07	0.03	-0.11	-0.12	-0.16	0.02	0.14	-0.06	-0.01	0.08	-0.13	-0.11	-0.10	-0.13	0.01	0.14	-0.16	-0.06
24	-0.1	-0.17	-0.16	-0.14	0.00	-0.10	-0.13	-0.12	-0.12	-0.12	-0.06	-0.02	-0.07	-0.01	-0.03	-0.07	-0.04	0.02	0.08	0.12	-0.02	0.09	0.17	0.01	0.17	-0.17	-0.04
25	-0.1	-0.10	-0.12	-0.04	0.10	0.43	0.37	0.24	0.21	0.23	0.42	0.30	0.20	0.35	0.36	0.37	0.40	0.50	0.44	0.32	0.48	0.36	0.65	0.43	0.65	-0.12	0.28
26	0.4	0.50	0.66	1.03	0.84	0.65	0.35	0.39	0.33	0.22	0.29	0.13	0.06	0.07	0.02	0.06	0.11	0.09	0.04	-0.01	-0.04	-0.04	0.05	0.12	1.03	-0.04	0.26
27	0.2	0.25	0.18	0.19	0.19	0.17	0.15	0.12	0.13	0.14	0.12	0.14	0.11	0.10	0.11	0.18	0.21	0.21	0.24	0.17	0.20	0.15	0.17	0.13	0.25	0.10	0.16
28	0.1	0.09	0.10	0.02	0.06	0.11	0.36	0.56	0.53	0.49	0.05	0.00	-0.05	-0.05	-0.01	0.07	0.08	0.13	0.15	0.16	0.16	0.18	0.16	0.15	0.56	-0.05	0.15
29	0.1	0.15	0.10	0.08	0.09	0.15	0.16	0.17	0.18	0.19	0.19	0.23	0.19	0.20	0.20	0.20	0.25	0.21	0.17	0.15	0.16	0.18	0.16	0.19	0.25	0.08	0.17
30	0.2	0.20	0.23	0.24	0.24	0.24	0.30	0.34	0.32	0.32	0.33	0.35	0.36	0.38	0.40	0.44	0.46	0.37	0.36	0.36	0.33	0.44	0.32	0.35	0.46	0.19	0.33
Max.	0.5	0.92	1.10	1.19	1.53	1.40	1.16	1.17	1.38	1.25	1.73	1.58	1.15	0.97	0.88	1.04	1.23	1.21	1.11	1.01	1.15	0.93	1.07	0.97	1.73		
Min.	-0.1	-0.17	-0.16	-0.21	-0.23	-0.23	-0.23	-0.24	-0.21	-0.23	-0.21	-0.19	-0.19	-0.16	-0.10	-0.08	-0.07	-0.09	-0.13	-0.13	-0.12	-0.10	-0.13	-0.15		-0.24	
Avg.	0.1	0.15	0.20	0.22	0.23	0.24	0.30	0.29	0.30	0.29	0.32	0.28	0.17	0.17	0.16	0.18	0.23	0.25	0.23	0.17	0.17	0.18	0.23	0.20			0.22

Total Hours in Month

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Temperature Difference 2-meter to 10-meter (deg. C)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0.4	0.36	0.31	0.36	0.36	0.31	0.30	0.43	0.42	0.48	0.50	0.47	0.22	0.14	0.13	0.29	0.40	0.62	1.00	1.02	1.15	0.92	1.18	1.59	1.59	0.13	0.56
2	1.4	1.40	1.20	0.97	0.87	0.65	1.24	1.49	1.96	1.02	1.81	1.81	1.80	1.64	1.52	0.89	0.82	1.16	0.73	0.51	0.59	0.84	1.16	0.65	1.96	0.51	1.17
3	0.4	0.18	0.18	0.09	0.05	0.10	0.17	0.25	0.29	0.36	0.33	0.30	0.27	0.22	0.10	0.20	0.28	0.43	0.30	0.16	0.12	0.15	0.33	0.16	0.44	0.05	0.23
4	0.2	0.15	0.28	0.27	0.17	0.05	0.06	0.00	-0.05	-0.07	-0.01	0.07	-0.08	-0.09	-0.09	-0.08	-0.07	-0.06	-0.05	-0.01	-0.03	-0.06	-0.06	-0.06	0.28	-0.09	0.02
5	-0.1	-0.05	-0.06	-0.06	-0.06	-0.05	-0.03	0.08	0.05	0.01	0.03	0.01	0.04	0.03	0.00	-0.05	0.01	0.07	0.04	0.04	-0.01	-0.04	-0.04	-0.11	0.08	-0.11	-0.01
6	-0.2	-0.16	-0.17	-0.17	-0.18	-0.20	-0.13	-0.12	-0.18	-0.16	-0.11	-0.13	-0.15	-0.12	-0.08	-0.07	-0.06	-0.04	0.10	0.23	0.06	-0.03	-0.06	-0.07	0.23	-0.20	-0.09
7	-0.1	-0.07	-0.07	-0.07	-0.06	-0.03	0.12	0.11	0.05	0.01	0.03	0.00	-0.05	-0.05	-0.05	-0.03	-0.05	-0.05	-0.04	0.00	0.04	0.11	0.06	0.02	0.12	-0.07	0.00
8	0.0	0.02	-0.02	-0.07	-0.06	-0.08	-0.11	0.07	0.04	0.08	0.16	0.48	0.34	0.13	-0.07	-0.09	-0.01	0.00	0.05	0.06	0.29	0.23	-0.06	-0.06	0.48	-0.11	0.05
9	0.0	-0.05	-0.03	-0.06	-0.05	-0.05	-0.03	0.00	0.10	0.26	0.05	0.10	0.09	0.12	0.20	0.31	0.21	0.13	0.09	0.01	-0.05	0.01	0.00	0.06	0.31	-0.06	0.06
10	0.1	0.23	0.28	0.34	0.34	0.11	0.05	0.02	0.04	0.03	0.04	0.08	0.07	0.09	0.00	-0.02	-0.06	-0.07	-0.05	-0.08	-0.07	-0.07	-0.09	-0.09	0.34	-0.09	0.05
11	-0.1	-0.07	-0.04	-0.06	-0.04	-0.01	0.35	0.73	1.50	1.43															1.50	-0.08	0.37
12																											
13	1.0	1.20	0.90	1.09	1.29	0.98	0.66	0.76	0.65										0.03	-0.02	0.11	0.48	0.68	1.08	1.08	-0.02	0.39
14	0.0	-0.04	0.01	-0.04	-0.03	0.00	0.06	-0.04	-0.11	-0.09	-0.07	-0.10	-0.12	-0.13	-0.17	-0.11	-0.11	-0.09	-0.04	-0.08	-0.03	-0.08	-0.03	0.00	1.29	0.65	0.94
15	-0.1	-0.07	-0.04	-0.08	-0.01	-0.02	-0.06	-0.09	-0.11	-0.06	-0.04	0.00	-0.09	-0.11	-0.06	-0.06	-0.01	0.05	0.13	0.10	0.02	-0.02	0.05	-0.01	0.06	-0.17	-0.06
16	0.0	0.10	0.04	0.10	0.03	0.06	0.01	-0.02	0.01	0.05	0.09	0.20	0.07	0.08	0.06	0.13	0.21	0.29	0.38	0.45	0.46	0.49	0.66	0.52	0.66	-0.02	0.19
17	0.7	0.63	0.39	0.65	0.58	0.53	0.36	0.56	0.70	0.57	0.53	0.36	0.09	0.12	0.09	0.21	0.43	0.65	0.48	0.90	0.48	0.40	0.61	0.85	0.90	0.09	0.49
18	0.9	0.42	0.46	0.53	0.49	0.44	0.37	0.50	0.42	0.26	0.33	0.34	0.29	0.33	0.35	0.34	0.29	0.48	0.44	0.41	0.33	0.41	0.63	0.89	0.92	0.26	0.44
19	1.5	1.08	0.37	0.41	0.47	0.61	0.57	0.32	0.23	0.06	-0.01	-0.05	0.07	0.01	0.01	-0.02	0.00	0.02	0.11	0.09	0.06	0.06	0.05	0.00	1.46	-0.05	0.25
20	0.0	0.02	-0.03	-0.03	-0.02	-0.03	-0.01	-0.05	-0.03	0.06	0.23	0.06	0.21	0.32	0.32	0.48	1.09	0.90	0.94	0.74	0.85	0.81	0.60	0.46	1.09	-0.05	0.33
21	0.3	0.41	0.48	0.33	0.31	0.11	0.22	0.28	0.12	0.25	0.34	0.30	0.29	0.25	0.29	0.04	0.09	0.20	0.21	0.14	0.16	0.00	-0.05	-0.08	0.48	-0.08	0.21
22	-0.1	-0.12	-0.07	0.02	0.05	-0.04	-0.07	-0.10	0.03	0.28	0.42	0.54	0.77	0.58	1.43	1.69	1.48	1.17	0.31	0.19	0.33	0.31	0.03	0.17	1.69	-0.12	0.39
23	0.1	0.43	0.36	0.44	0.37	0.62	0.04	-0.06	-0.04	-0.10	-0.11	-0.07	0.01	0.00	-0.06	-0.05	-0.04	0.00	0.05	0.05	0.06	0.06	-0.04	-0.10	0.62	-0.11	0.08
24	0.0	0.04	0.07	0.04	-0.01	0.02	-0.04	0.03	0.06	0.19	0.28	0.29	0.36	0.40	0.43	0.39	0.48	0.69	0.77	0.89	0.76	0.75	1.23	1.39	1.39	-0.04	0.39
25	1.4	1.13	1.14	1.01	0.60	0.76	0.85	0.44	0.45	0.62	0.31	0.36	0.39	0.51	0.15	0.19	0.39	0.26	0.12	0.11	0.18	0.26	0.25	0.25	1.40	0.11	0.51
26	0.3	0.24	0.31	0.35	0.47	0.38	0.43	0.48	0.47	0.46	0.46	0.46	0.42	0.40	0.30	0.28	0.29	0.24	0.24	0.10	0.03	0.00	0.01	-0.02	0.48	-0.02	0.29
27	0.0	-0.04	-0.11	-0.09	-0.06	-0.06	-0.06	0.06	0.11	0.37	1.01	0.83	0.78	0.88	0.29	1.08	1.16	1.17	0.81	0.64	0.40	0.27	0.24	0.28	1.17	-0.11	0.41
28	0.2	0.26	0.14	0.19	0.09	0.05	0.08	0.14	0.20	0.21	0.28	0.45	0.46	0.51	0.57	0.36	0.47	0.47	0.48	0.14	0.06	0.05	0.02	-0.04	0.57	-0.04	0.24
29	0.0	-0.05	-0.08	-0.09	-0.02	0.20	0.27	0.21	0.36	1.39	1.08	0.83	0.30	0.02	-0.12	-0.12	-0.12	-0.11	-0.16	-0.12	-0.05	-0.02	-0.15	-0.15	1.39	-0.16	0.14
30	0.0	0.14	0.22	0.18	-0.02	-0.06	0.07	-0.12	-0.11	-0.10	-0.09	-0.13	-0.11	-0.19	-0.27	-0.17	-0.11	-0.10	-0.01	0.68	0.42	0.55	0.14	0.79	0.79	-0.27	0.06
31																											
Max.	1.5	1.40	1.20	1.09	1.29	0.98	1.24	1.49	1.96	1.43	1.81	1.81	1.80	1.64	1.52	1.69	1.48	1.17	1.00	1.02	1.15	0.92	1.23	1.59	1.96		
Min.	-0.2	-0.16	-0.17	-0.17	-0.18	-0.20	-0.13	-0.12	-0.18	-0.16	-0.11	-0.13	-0.15	-0.19	-0.27	-0.17	-0.12	-0.11	-0.16	-0.12	-0.07	-0.08	-0.15	-0.15		-0.27	
Avg.	0.3	0.27	0.22	0.23	0.20	0.18	0.20	0.22	0.26	0.28	0.29	0.29	0.25	0.23	0.19	0.22	0.28	0.31	0.27	0.26	0.24	0.24	0.26	0.30			0.27

Total Hours in Month

744

Hours Data Available

673

Data Recovery

90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	66.2	67.0	68.0	69.9	70.0	72.3	71.6	75.0	75.6	77.0	76.5	76.7	78.6	79.8	78.4	78.9	80.8	81.6	82.7	81.7	82.4	82.7	82.1	81.1	82.7	66.2	76.5
2	81.3	81.0	80.7	80.7	80.6	80.0	79.8	79.8	79.3	79.9	80.3	79.5	79.9	79.7	79.4	79.9	80.5	80.1	79.9	79.6	78.8	79.0	79.4	78.4	81.3	78.4	79.9
3	78.8	78.6	78.7	78.4	77.8	77.9	78.4	77.0	76.5	76.3	76.3	76.0	76.0	76.3	76.9	76.7	77.4	77.4	77.3	77.1	77.2	76.4	76.5	77.1	78.8	76.0	77.2
4	75.9	76.2	76.5	77.2	76.9	77.2	77.2	77.7	77.9	78.6	78.6	79.6	80.7	81.9	82.4	82.5	80.4	79.1	79.9	79.0	79.5	81.6	84.9	91.2	91.2	75.9	79.7
5	89.8	87.9	84.9	83.2	83.1	83.0	83.1	81.5	80.7	80.4	79.7	80.1	79.6	79.5	80.3	79.8	79.6	80.3	80.4	81.0	81.1	80.2	80.4	80.8	89.8	79.5	81.7
6	80.9	81.3	81.2	81.5	81.6	81.5	81.2	80.9	80.5	80.1	79.5	77.7	75.2	73.2	72.4	72.6	75.8	77.6	77.8	77.9	78.3	77.7	76.8	76.1	81.6	72.4	78.3
7	75.6	75.2	76.0	75.8	75.6	75.5	74.9	74.3	74.3	73.8	74.6	74.0	73.6	74.9	75.7	75.6	75.2	74.8	75.1	75.1	74.7	74.8	74.9	75.3	76.0	73.6	75.0
8	74.8	75.5	75.3	75.1	75.9	76.4	76.5	76.2	76.2	76.3	76.7	76.9	76.8	78.0	78.0	78.8	79.5	79.8	79.9	79.9	80.8	81.1	81.7	81.5	81.7	74.8	77.8
9	81.5	80.1	76.0	72.8	70.5	69.8	67.4	65.3	61.1	59.8	56.8	55.1	48.0	43.2	42.8	45.4	71.1	72.3	65.4	55.8	46.4	50.5	52.7	62.8	81.5	42.8	61.4
10	61.5	54.4	68.3	63.4	62.0	64.3	80.8	79.8	72.6	76.9	83.5	90.6	96.8	97.3	97.6	97.7	97.9	98.1	98.6	98.6	98.8	99.0	99.0	99.2	99.2	54.4	84.9
11	99.3	99.4	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.9	100.0	100.0	100.0	100.0	99.3	99.9
12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
13	99.9	99.7	99.4	99.2	99.5	100.0	99.9	99.5	99.4	99.6	99.5	99.7	99.6	99.3	99.1	99.3	99.1	98.7	98.0	96.7	97.4	97.3	97.0	96.7	100.0	96.7	98.9
14	95.8	95.6	95.0	94.6	95.1	95.0	95.1	95.2	95.5	96.0	96.4	96.3	96.6	96.2	95.9	95.8	95.7	96.2	96.2	96.3	95.9	95.6	94.9	95.7	96.6	94.6	95.7
15	96.1	95.5	95.1	94.3	94.0	94.6	95.4	95.5	95.3	95.1	94.8	95.0	94.4	93.7	94.3	94.4	94.0	94.0	93.6	93.0	92.0	91.7	91.5	91.1	96.1	91.1	94.1
16	91.7	92.4	93.4	92.9	92.1	93.0	93.9	93.5	81.3	69.9	73.4	81.4	87.7	94.0	95.1	90.4	89.8	89.9	89.7	90.2	92.6	96.6	98.2	99.4	99.4	69.9	90.1
17	99.9	99.6	99.6	99.3	99.0	98.9	98.9	99.0	99.2	99.2	99.2	99.4	99.7	99.6	99.3	99.1	99.3	99.1	98.7	98.0	96.7	97.4	97.3	97.0	100.0	96.7	98.9
18	86.8	88.0	88.0	85.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.6	99.8	98.6	98.6	98.9	99.1	99.2	100.0	99.7	99.3	99.0	99.4	100.0	86.8	98.1
19	99.0	99.1	99.2	99.7	99.8	99.5	99.4	99.4	99.4	99.1	98.7	98.8	98.6	98.0	98.6	98.7	98.9	99.1	99.2	100.0	99.9	100.0	99.9	100.0	100.0	98.0	99.3
20	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	100.0	99.9	99.9
21	78.3	80.5	80.9	82.8	87.8	91.6	85.9	82.7	89.8	92.4	93.3	92.2	93.3	94.1	93.0	91.7	92.0	91.4	89.8	90.2	90.2	89.3	91.3	89.5	94.1	78.3	88.9
22	88.1	88.7	90.5	92.1	94.7	94.9	94.9	94.3	94.1	93.9	93.7	94.0	94.2	93.0	89.2	88.3	88.4	89.8	91.2	91.7	94.5	94.7	94.0	92.9	94.9	88.1	92.3
23	91.6	91.3	91.0	90.8	90.5	89.9	89.7	89.6	89.2	89.0	88.6	88.8	88.4	88.0	88.7	88.5	87.3	87.7	88.3	88.0	87.5	87.4	86.7	86.1	91.6	86.1	88.9
24	85.3	84.4	84.7	84.3	83.9	83.5	83.0	82.1	81.2	81.4	80.7	80.6	80.5	81.2	81.5	81.5	81.5	81.5	81.0	81.2	82.5	84.3	83.5	83.8	85.3	80.5	82.5
25	83.9	83.0	86.5	87.5	86.2	83.1	92.3	93.8	94.6	95.3	94.7	93.1	92.4	94.1	94.4	96.0	95.0	91.0	86.7	85.5	87.4	88.4	89.7	90.9	96.0	83.0	90.2
26	90.8	91.8	92.8	92.0	92.6	94.2	94.6	93.2	93.8	97.6	100.0	100.0	100.0	99.9	94.2	89.2	86.1	87.3	89.8	87.6	84.6	82.9	83.3	85.4	100.0	82.9	91.8
27	83.2	82.8	85.3	85.1	87.5	90.6	92.9	91.5	92.1	92.1	96.7	99.4	100.0	100.0	100.0	95.6	84.8	81.5	85.4	80.5	80.7	82.9	85.7	86.6	100.0	80.5	89.3
28	87.8	89.3	94.9	96.4	95.2	99.8	98.4	99.9	100.0	100.0	100.0	99.2	97.8	99.7	96.2	94.7	94.7	93.7	94.9	93.8	91.3	90.0	88.8	86.1	100.0	86.1	95.1
29	85.9	84.1	82.8	76.2	78.2	71.5	71.2	80.0	86.5	91.6	91.2	91.9	88.9	86.7	90.0	91.7	96.3	96.4	98.0	99.9	100.0	100.0	100.0	100.0	100.0	71.2	89.1
30	100.0	100.0	96.6	93.9	94.0	93.0	93.7	94.5	86.8	80.9	76.1	71.6	64.7	64.4	72.9	74.7	71.7	80.2	86.8	86.7	90.0	94.4	97.7	99.8	100.0	64.4	86.0
31	97.2	92.2	87.4	88.7	86.7	85.1	87.7	85.2	92.3	98.5	95.5	100.0	100.0	100.0	98.7	98.6	97.8	94.8	93.8	96.2	91.9	84.7	83.5	83.7	100.0	83.5	92.5
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Min.	61.5	54.4	68.0	63.4	62.0	64.3	67.4	65.3	61.1	59.8	56.8	55.1	48.0	43.2	42.8	45.4	71.1	72.3	65.4	55.8	46.4	50.5	52.7	62.8	42.8		
Avg.	87.3	86.9	87.4	87.2	87.4	87.6	88.3	88.3	87.9	88.1	88.2	88.6	88.4	88.0	87.7	87.2	87.8	87.7	88.2	88.0	87.7	87.7	87.6	88.1	87.8		

Total Hours in Month 744 Hours Data Available 737 Data Recovery 99.1%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	88.9	88.4	84.7	82.8	79.9	72.3	71.2	79.2	76.7	75.0	77.0	94.1	79.5	63.5	64.9	54.6	46.7	47.6	57.2	59.4	61.9	79.4	96.8	100.0	100.0	46.7	74.2
2	100.0	100.0	100.0	97.6	95.6	94.1	91.4	95.3	97.2	96.5	95.2	95.0	92.3	90.0	91.3	91.0	91.5	91.8	92.4	91.4	89.7	90.4	92.2	91.0	100.0	89.7	93.9
3	91.5	93.9	95.8	95.2	94.9	94.3	95.1	95.8	94.0	93.6	93.7	94.1	91.8	89.3	87.6	88.9	91.7	90.1	90.3	83.4	87.0	91.5	94.4	92.1	95.8	83.4	92.1
4	85.3	85.7	87.5	88.5	85.7	83.4	85.5	85.6	83.4	83.7	84.5	84.6	85.3	82.3	70.6	62.8	63.3	69.3	74.1	82.2	60.7	50.1	51.9	48.5	88.5	48.5	76.0
5	46.1	43.3	44.8	48.2	46.8	45.8	50.2	48.1	44.8	48.0	51.0	45.4	46.8	50.7	59.1	63.8	62.0	58.9	61.5	58.8	62.8	64.9	68.4	67.4	68.4	43.3	53.6
6	66.7	68.0	66.2	63.4	64.7	64.9	63.7	65.6	66.5	70.4	71.3	69.4	70.0	71.1	71.9	71.3		74.2	74.4	73.4	75.0	70.1	73.8		75.0	63.4	69.4
7	73.9	72.0	72.6	75.3	83.1	94.7	96.0	97.9	98.0	99.0	99.1	99.8	99.8	100.0	100.0	100.0	99.9	99.4	96.7	99.9	100.0	100.0	100.0	100.0	100.0	72.0	94.0
8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0
9	99.7	99.5	100.0	99.8	100.0	99.7	99.7	98.5	100.0	100.0	100.0	100.0	98.0	96.9	95.6	95.8	96.5	96.5	99.9	100.0	100.0	100.0	100.0	100.0	100.0	95.6	99.0
10	99.1	97.8	98.1	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	99.4	98.6	98.1	97.7	100.0	97.7	99.5
11	97.6	99.5	99.7	99.5	99.3	99.5	99.4	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.4	95.4	95.4	98.1	96.1	94.3	94.3	94.3	93.5	100.0	93.5	98.2
12	93.5	93.0	92.5	91.2	93.5	91.4	89.7	87.4	86.8	87.0	87.1	84.0	79.8	76.2	73.3	71.6	71.4	71.0	71.9	71.3	71.2	71.0	72.8	71.7	93.5	71.0	81.3
13	69.6	66.8	66.7	67.7	68.1	67.0	64.9	69.7	78.5	84.3	78.1	75.7	77.4	80.7	80.0	78.4	84.4	86.1	89.6	96.4	99.0	99.0	96.8	96.3	99.0	64.9	80.1
14	96.9	94.4	93.2	94.7	95.0	99.5	100.0	100.0	100.0	97.5	98.0	95.7	92.1	89.8	89.8	89.4	89.2	87.0	84.4	80.5	82.7	77.5	74.2	74.3	100.0	74.2	90.7
15	74.9	76.7	73.4	70.4	76.2	77.9	78.9	76.7	75.6	78.5	79.8	82.4	79.1	79.6	80.4	86.2	86.9	86.7	86.8	88.8	84.3	84.2	81.3	81.1	88.8	70.4	80.3
16	80.0	79.8	78.7	79.2	76.9	79.9	79.9	78.5	79.4	80.5	83.9	88.7	88.5	89.4	89.7	88.7	86.5	85.6	87.4	85.2	83.5	83.4	83.4	83.2	89.7	76.9	83.3
17	80.1	81.4	85.3	91.0	94.6	95.4	97.2	99.6	99.4	98.5	95.7	94.5	94.2	84.2	82.2	77.7	79.4	89.3	93.8	94.1	93.5	89.4	86.7	87.1	99.6	77.7	90.2
18	91.8	93.2	94.0	98.1	99.5	98.9	98.9	98.7	98.5	98.5	98.4	98.4	98.5	98.4	98.5	98.8	99.2	98.9	98.8	98.4	98.3	98.3	97.8	97.3	99.5	91.8	97.8
19	96.8	96.4	96.0	95.8	95.4	94.7	94.2	93.9	93.6	93.0	91.9	90.5	90.1	90.4	90.8	90.9	90.3	89.4	88.7	87.9	87.2	86.9	86.3	85.9	96.8	85.9	91.5
20	83.8	77.1	64.6	63.9	65.4	67.0	71.7	72.9	72.5	70.7	70.0	70.2	68.7	66.9	66.5	69.2	69.3	69.7	67.7	68.8	71.1	73.7	72.4	70.9	83.8	63.9	70.2
21	71.7	74.0	75.1	76.6	76.8	75.9	73.4	73.1	74.3	75.6	74.0	73.9	71.3	67.3	65.5	64.2	64.9	64.3	65.1	65.0	65.2	66.9	69.4	68.0	76.8	64.2	70.5
22	69.3	67.6	68.1	67.6	67.2	64.9	68.6	70.4	71.0	70.0	69.5	67.1	67.6	66.2	66.0	65.7	64.5	63.6	67.6	68.4	68.5	68.4	67.9	65.8	71.0	63.6	67.6
23	67.9	67.4	66.0	65.3	61.6	63.4	62.9	66.7	67.4	68.7	69.5	69.2	66.5	66.6	65.5	64.3	63.1	64.2	67.6	67.1	67.3	63.5	68.6	68.9	69.5	61.6	66.2
24	67.7	60.7	59.0	55.3	57.6	65.0	68.4	72.9	75.7	79.4	80.5	78.3	77.2	70.5	62.2	60.4	61.2	60.7	57.7	58.8	59.0	60.5	61.0	55.3	80.5	55.3	65.2
25	52.6	49.2	50.5	50.6	51.0	49.8	50.0	52.3	52.1	55.1	55.7	54.9	54.3	48.4	55.4	68.2	76.9	79.9	80.3	82.0	83.5	86.1	88.6	91.3	91.3	48.4	63.3
26	92.9	93.7	94.2	95.5	95.1	94.7	94.8	95.0	95.8	95.7	95.2	94.4	94.9	95.3	95.4	96.2	96.2	95.5	94.3	94.5	94.7	94.2	93.8	93.4	96.2	92.9	94.8
27	92.5	91.5	90.1	84.6	80.3	75.8	74.0	70.6	69.9	72.6	72.7	72.5	76.4	69.7	62.2	63.3	63.7	65.0	67.0	58.2	60.1	52.0	48.6	55.4	92.5	48.6	70.4
28	58.8	59.3	57.8	61.4	69.3	71.6	72.7	72.4	74.1	77.6	78.2	76.9	76.5	74.2	71.3	71.7	71.6	69.6	69.3	69.4	72.3	73.2	71.3	71.2	78.2	57.8	70.5
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Min.	46.1	43.3	44.8	48.2	46.8	45.8	50.0	48.1	44.8	48.0	51.0	45.4	46.8	48.4	55.4	54.6	46.7	47.6	57.2	58.2	59.0	50.1	48.6	48.5		43.3	
Avg.	81.8	81.1	80.5	80.7	81.2	81.5	81.9	82.7	83.0	83.9	83.9	83.9	82.7	80.6	79.8	79.8	80.3	80.6	81.5	81.4	81.1	81.2	81.7	81.5			81.6

Total Hours in Month 672 Hours Data Available 670 Data Recovery 99.7%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	72.6	72.9	72.3	71.5	70.8	72.2	72.3	72.1	71.3	71.9	70.7	68.2	66.7	64.8	63.1	61.8	60.7	60.9	62.5	61.4	62.3	65.0	65.6	64.1	72.9	60.7	67.4
2	64.5	64.5	63.2	63.3	64.5	63.1	64.6	64.9	63.9	63.5	62.7	62.8	62.8	62.8	60.0	58.5	58.7	57.7	58.3	58.6	58.5	60.6	60.0	60.6	64.9	57.7	61.6
3	59.7	59.6	61.5	59.2	60.8	61.2	62.1	62.0	65.1	64.8	64.5	63.5	61.9	61.6	61.0	60.3	62.6	62.6	61.2	60.1	59.3	60.5	62.9	65.4	65.4	59.2	61.8
4	68.0	69.8	66.6	65.5	67.7	69.8	68.6	70.1	70.6	71.2	71.7	74.2	74.0	73.3	73.1	72.3	71.0	71.1	71.6	73.9	78.2	79.2	78.9	78.3	79.2	65.5	72.0
5	77.4	77.2	77.0	76.4	75.6	76.2	75.7	75.5	75.5	73.9	71.3	69.7	68.3	68.0	66.4	65.3	65.9	64.4	65.0	65.6	66.4	67.7	68.2	67.7	77.4	64.4	70.8
6	69.5	70.3	69.9	69.2	69.5	70.0	71.3	71.2	71.6	72.1	70.6	68.3	67.4	67.4	66.6	66.2	66.4	65.7	65.5	65.4	65.6	65.7	65.6	66.0	72.1	65.4	68.2
7	67.1	68.3	67.4	67.9	68.8	69.0	70.3	70.4	69.9	70.4	68.4	66.4	65.1	63.4	61.2	58.7	58.9	59.9	60.6	65.1	69.9	71.1	74.1	75.5	75.5	58.7	67.0
8	75.2	76.3	77.5	77.7	76.9	77.9	78.6	78.2	78.6	79.4	78.8	76.3	74.0	73.5	71.8	69.6	67.5	67.2	69.4	72.3	73.8	73.8	73.7	74.0	79.4	67.2	74.7
9	74.9	75.4	76.0	76.1	76.7	79.0	79.0	78.9	79.7	78.8	77.8	76.7	75.0	73.2	71.7	70.4	69.0	69.0	70.0	72.4	73.1	73.7	73.6	73.4	79.7	69.0	74.7
10	73.9	73.4	72.6	73.1	72.4	72.7	72.6	72.0	70.4	70.5	71.7	73.4	71.7	69.4	68.6	67.1	66.1	66.1	67.1	69.8	73.5	74.7	72.8	71.4	74.7	66.1	71.1
11	72.2	73.6	72.9	74.5	75.3	75.3	74.0	75.0	76.2	76.5	75.6	74.5	72.9	70.7	69.7	68.5	67.9	67.1	66.5	68.0	69.5	68.2	66.9	68.4	76.5	66.5	71.7
12	70.3	70.4	71.1	70.5	71.0	71.6	71.1	68.5	68.6	64.7	62.5	62.6	64.8	64.3	66.4	68.3	65.1	63.9	63.4	64.9	63.1	64.1	67.3	67.9	71.6	62.5	66.9
13	68.0	67.4	67.8	67.0	67.8	66.2	68.1	67.9	68.8	71.8	71.3	70.9	69.8	68.5	67.3	65.6	64.2	63.1	61.0	63.3	65.8	65.4	64.5	64.5	71.8	61.0	66.9
14	65.3	65.6	63.8	64.5	64.1	63.3	65.0	64.4	65.7	63.1	61.0	59.5	58.8	58.3	56.6	56.4	55.5	54.9	54.4	55.8	56.9	57.8	59.9	61.1	65.7	54.4	60.5
15	62.5	65.6	66.3	67.4	68.9	70.6	71.9	73.9	73.0	71.1	69.6	67.9	65.8	63.9	61.5	59.8	57.3	57.0	59.2	62.5	64.6	65.5	65.3	66.4	73.9	57.0	65.7
16	68.4	70.0	70.5	70.9	70.5	70.1	70.0	70.7	71.0	70.2	69.0	67.5	65.4	63.6	60.9	59.1	57.7	58.1	60.0	64.0	68.3	71.0	70.8	67.7	71.0	57.7	66.9
17	65.8	65.2	65.4	66.6	66.8	66.9	67.4	69.5	69.4	70.8	69.5	69.0	67.6	66.8	65.1	61.8	57.7	56.8	58.1	62.5	65.8	66.1	64.6	62.3	70.8	56.8	65.3
18	62.1	60.8	58.5	60.4	63.9	65.2	63.7	65.4	62.2	63.8	70.0	70.9	64.5	63.3	61.1	60.7	61.0	60.1	61.4	66.0	69.2	70.0	69.7	71.0	71.0	58.5	64.4
19	70.8	68.9	70.2	70.5	70.1	70.8	70.4	71.2	69.9	68.5	70.2	70.1	66.3	63.5	61.9	60.5	58.8	56.3	57.7	57.3	54.9	55.2	55.9	57.1	71.2	54.9	64.5
20	55.6	53.5	56.2	58.8	61.5	58.3	56.6	57.0	55.7	53.8	51.1	48.6	64.4	93.6	96.6	96.7	96.9	97.1	97.6	97.3	96.7	90.4	83.8	80.1	97.6	48.6	73.2
21	91.0	98.1	99.3	99.4	99.4	98.2	98.1	98.2	98.3	98.7	95.5	95.1	95.5	95.3	94.7	93.2	91.3	90.2	91.5	93.6	93.8	93.5	93.0	91.1	99.4	90.2	95.3
22	90.4	90.1	89.3	88.9	87.6	88.7	88.3	88.0	87.5	87.2	87.5	88.4	89.1	89.0	84.7	82.8	82.7	81.0	79.7	77.7	78.5	80.0	82.7	83.9	90.4	77.7	85.6
23	82.6	82.4	82.6	82.8	82.4	80.4	81.6	83.9	83.2	81.0	82.1	82.3	81.5	80.7	81.3	81.7	80.2	78.9	80.0	80.0	80.0	79.4	75.6	71.7	83.9	71.7	80.8
24	70.0	72.0	70.1	70.5	70.1	71.8	73.2	73.0	72.7	70.6	68.8	68.5	68.7	67.1	67.3	68.7	69.6	68.7	66.3	64.7	62.0	60.9	60.3	59.2	73.2	59.2	68.1
25	53.5	52.2	52.9	56.9	72.0	79.9	82.8	87.9	89.8	89.9	89.7	90.1	91.0	91.2	91.5	92.5	92.3	95.1	95.1	94.8	94.6	94.1	92.5	86.7	95.1	52.2	83.7
26	80.1	80.8	78.9	82.8	87.7	89.0	93.5	96.6	96.1	94.6	93.7	91.9	91.2	90.0	89.2	88.7	86.7	87.7	87.1	90.3	93.5	93.2	93.0	93.1	96.6	78.9	89.6
27	93.2	94.0	92.7	92.0	89.5	82.7	80.0	79.4	80.3	80.0	77.3	78.5	77.0	77.2	78.3	70.4	69.6	69.9	64.2	65.7	65.1	69.5	72.3	74.4	94.0	64.2	78.0
28	72.4	73.4	73.1	71.0	69.0	66.6	70.2	71.7	72.3	73.6	71.3	72.2	72.0	71.0	71.3	71.7	72.1	70.8	72.1	71.5	71.3	70.5	70.1	70.5	73.6	66.6	71.3
29	70.4	70.6	67.7	65.4	64.5	64.0	66.9	67.2	69.5	69.1	69.1	68.5	68.5	65.1	63.7	65.2	66.2	64.6	66.4	69.9	64.5	63.4	64.2	60.7	70.6	60.7	66.5
30	62.3	57.6	58.6	61.4	61.1	64.6	65.2	67.0	60.3	58.3	57.9	56.5	57.9	58.7	57.3	49.0	49.2	52.2	50.0	47.9	46.6	41.5	37.9	38.4	67.0	37.9	54.9
31	40.5	40.8	43.3	42.8	39.8	31.9	27.2	26.2	26.4	26.8	28.5	31.6	30.8	31.4	34.6	43.4	48.0	50.2	53.4	51.8	54.5	55.4	46.8	47.3	55.4	26.2	39.7
Max.	93.2	98.1	99.3	99.4	99.4	98.2	98.1	98.2	98.3	98.7	95.5	95.1	95.5	95.3	96.6	96.7	96.9	97.1	97.6	97.3	96.7	94.1	93.0	93.1	99.4		
Min.	40.5	40.8	43.3	42.8	39.8	31.9	27.2	26.2	26.4	26.8	28.5	31.6	30.8	31.4	34.6	43.4	48.0	50.2	50.0	47.9	46.6	41.5	37.9	38.4		26.2	
Avg.	70.0	70.3	70.2	70.5	71.2	71.2	71.6	72.2	72.0	71.6	71.0	70.5	70.0	69.9	69.2	68.2	67.7	67.4	67.6	68.8	69.7	69.9	69.4	69.0			70.0

Total Hours in Month 744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	59.0	68.6	71.9	72.1	72.0	72.3	74.0	75.0	69.3	65.1	61.6	59.4	64.8	63.6	61.8	59.4	53.1	52.8	55.5	56.7	58.7	64.2	70.7	65.7	75.0	52.8	64.5	
2	57.3	62.5	68.0	69.6	64.7	55.6	55.9	67.2	80.9	84.3	84.4	81.3	80.0	78.3	78.4	78.3	79.5	80.9	80.7	81.5	80.9	80.1	79.1	76.4	84.4	55.6	74.4	
3	75.4	78.9	80.1	78.9	78.7	81.0	84.6	83.3	82.9	82.5	85.4	83.8	80.1	76.2	77.5	74.7	76.6	77.5	79.1	81.2	79.4	75.9	76.6	84.9	85.4	74.7	79.8	
4	78.0	77.5	78.6	81.4	80.1	80.2	79.3	79.8	75.8	71.2	69.7	68.4	66.3	65.4	62.9	62.9	64.9	64.0	65.8	66.4	65.0	62.6	59.3	57.6	81.4	57.6	70.1	
5	50.1	48.9	50.4	52.8	50.8	58.1	65.9	64.3	65.1	65.2	63.1	64.9	66.1	65.3	65.4	65.0	59.7	60.1	83.6	83.5	90.8	88.6	90.7	91.5	91.5	48.9	67.1	
6	92.5	93.9	91.2	85.3	88.2	83.2	82.1	79.6	81.7	80.8	84.3	77.2	68.6	64.8	58.0	54.7	53.0	56.3	70.6	87.9	96.4	89.1	80.2	75.2	96.4	53.0	78.1	
7	78.9	80.2	86.7	96.6	99.7	100.0	100.0	100.0	100.0	100.0	99.5	95.6	94.5	96.8	94.2	86.9	80.3	79.3	80.5	85.7	89.4	90.7	82.4	82.5	100.0	78.9	90.9	
8	82.7	84.3	84.8	83.3	80.6	77.2	75.4	70.5	68.9	71.5	69.7	65.9	64.0	63.7	64.6	66.4	65.1	66.4	73.2	68.6	74.5	81.7	81.7	95.0	95.0	63.7	74.2	
9	98.9	97.2	97.6	98.9	94.4	92.6	96.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.3	96.4	98.1	99.8	96.2	92.8	94.6	99.5	100.0	100.0	92.6	98.0	
10	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.0	86.6	80.3	82.0	80.8	80.8	76.9	80.1	83.5	87.4	88.7	87.5	100.0	76.9	92.0
11	87.9	93.7	94.5	91.6	88.6	86.4	88.5	89.5	84.9	77.9	78.9	78.6	76.3	77.4	76.1	73.9	75.3	76.3	75.9	76.9	82.1	85.2	84.7	82.3	94.5	73.9	82.6	
12	81.1	82.0	81.2	75.5	73.9	73.7	75.1	77.2	75.3	72.0	69.4	68.5	66.9	67.2	66.2	62.7	58.6	59.0	53.1	52.7	52.7	58.3	67.3	71.2	82.0	52.7	68.4	
13	76.5	80.0	83.5	85.5	88.1	90.3	92.0	94.1	96.1	97.4	96.9	97.7	95.8	90.2	84.2	80.0	74.4	69.7	71.6	81.6	90.5	99.3	99.8	100.0	100.0	69.7	88.1	
14	100.0	99.6	96.7	95.2	96.5	95.2	98.3	100.0	100.0	100.0	100.0	100.0	100.0	94.3	82.1	80.3	83.0	79.9	79.5	84.4	86.9	92.2	97.0	99.6	100.0	79.5	93.4	
15	99.8	95.7	85.5	91.2	89.8	96.2	96.4	94.3	93.5	85.4	87.8	77.6	82.4	80.1	79.2	79.2	73.4	71.2	76.1	80.0	77.4	84.1	88.4	86.8	99.8	71.2	85.5	
16	87.1	86.4	87.2	90.4	89.8	91.3	87.2	87.5	87.0	85.0	82.2	80.4	82.9	82.4	89.1	98.9	100.0	99.5	96.2	94.5	94.6	96.8	100.0	100.0	100.0	80.4	90.7	
17	100.0	99.4	97.5	97.2	87.2	85.1	73.2	73.7	82.8	87.8	97.2	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	73.2	95.0	
18	100.0	100.0	100.0	100.0	100.0	96.8	92.7	94.3	93.7	93.1	93.2	92.1	87.4	86.5	89.4	94.5	96.5	99.9	99.8	98.8	100.0	100.0	100.0	100.0	100.0	86.5	96.2	
19	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	95.0	95.1	99.9	100.0	100.0	100.0	100.0	100.0	100.0	98.2	96.8	100.0	100.0	95.0	99.4	
20	100.0	100.0	98.8	99.9	95.5	97.1	100.0	97.4	92.7	96.1	89.6	78.8	77.4	75.6	73.2	73.8	75.4	75.2	80.3	76.1	77.8	77.5	77.8	76.5	100.0	73.2	85.9	
21	74.0	72.2	71.7	69.6	70.8	67.2	65.3	68.6	66.3	65.8	68.9	71.4	71.1	68.0	66.9	72.5	72.4	75.2	74.8	80.2	82.5	80.8	79.4	79.9	82.5	65.3	72.3	
22	77.3	75.1	75.4	78.5	73.5	73.3	68.0	62.5	68.2	72.9	77.5	68.7	62.5	61.4	64.7	70.2	67.7	73.2	77.7	84.5	81.3	80.6	79.7	82.9	84.5	61.4	73.2	
23	79.1	76.9	77.3	72.0	76.9	79.2	79.5	77.5	77.9	77.0	70.2	65.5	59.9	63.9	67.8	65.7	70.9	82.9	76.7	89.2	87.3	79.4	88.6	94.4	94.4	59.9	76.5	
24	93.9	91.6	91.6	90.2	88.6	86.8	88.5	88.1	88.0	82.1	78.3	69.3	61.4	60.7	68.3	72.7	64.4	62.8	63.1	71.3	79.2	84.5	90.7	93.3	93.9	60.7	79.6	
25	91.0	90.1	85.5	88.2	84.2	82.6	82.4	83.2	80.2	78.3	73.7	70.2	72.3	85.0	79.0	75.2	74.6	74.3	71.3	77.3	79.5	82.3	76.2	75.2	91.0	70.2	79.7	
26	72.6	74.7	73.8	71.4	72.8	67.4	65.5	71.4	78.0	71.6	67.6	55.5	45.9	42.9	36.3	40.7	41.4	39.7	41.1	42.9	42.3	51.3	57.0	57.9	78.0	36.3	57.6	
27	59.8	59.0	54.6	54.9	64.3	67.4	69.4	71.1	68.3	70.7	70.4	66.0	59.8	57.5	60.2	62.9	60.9	64.6	79.5	83.9	90.9	94.0	96.3	99.7	99.7	54.6	70.3	
28	100.0	98.0	97.9	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.3	81.3	73.2	68.1	68.4	65.4	71.0	65.6	72.2	78.7	82.9	85.6	100.0	65.4	87.6	
29	88.2	88.0	85.8	86.9	86.3	87.2	86.8	84.8	77.0	68.5	65.2	64.9	61.0	53.8	50.0	49.8	48.4	45.4	47.9	51.1	56.3	60.7	61.4	66.5	88.2	45.4	67.6	
30	77.7	87.7	94.3	92.1	89.6	84.7	82.0	84.1	81.1	77.5	59.5	50.4	45.0	38.3	35.1	33.7	32.3	37.2	44.5	48.2	55.3	58.6	58.0	56.3	94.3	32.3	62.6	
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Min.	50.1	48.9	50.4	52.8	50.8	55.6	55.9	62.5	65.1	65.1	59.5	50.4	45.0	38.3	35.1	33.7	32.3	37.2	41.1	42.9	42.3	51.3	57.0	56.3		32.3		
Avg.	84.0	84.7	84.7	85.0	84.2	83.6	83.5	84.0	83.9	82.7	81.5	78.4	75.9	74.1	72.8	72.7	71.6	72.3	74.9	77.6	80.0	81.9	83.0	84.1			80.0	

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

Pebble 1 Meteorological Station - Relative Humidity (%)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	56.6	55.1	56.1	63.8	68.3	72.1	77.5	74.7	79.1	75.7	73.5	71.2	67.5	64.8				83.9	76.9	86.1	88.4	86.1	87.9	89.6	89.6	55.1	74.0
2	89.5	91.0	87.9	89.3	88.9	97.0	97.7	99.1	92.9	97.3	89.4	91.7	79.1	81.6	87.3	68.1	63.1	70.8	69.1	69.0	74.0	78.0	81.0	81.1	99.1	63.1	83.9
3	79.7	79.1	78.8	79.0	77.4	77.6	77.9	79.9	78.6	74.4	70.3	68.7	64.6	56.4	51.5	47.4	46.6	65.6	74.1	69.5	70.3	77.2	71.7	75.5	79.9	46.6	70.5
4	84.4	88.0	89.1	85.6	86.2	90.1	89.7	89.6	89.4	85.8	82.6	80.0	75.0	73.0	68.0	63.7	61.8	62.4	63.4	74.7	74.7	74.6	78.2	80.6	90.1	61.8	78.8
5	83.5	93.9	97.4	98.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	93.1	85.8	80.2	73.3	69.9	71.9	73.3	77.9	80.0	83.2	83.7	100.0	69.9	89.4
6	79.7	77.1	76.0	78.4	80.2	82.4	83.3	80.4	77.1	72.3	67.9	68.6	65.4	60.0	59.1	61.1	60.5	62.2	66.6	70.1	73.1	76.0	80.1	82.5	83.3	59.1	72.5
7	85.1	84.0	83.1	85.7	88.4	88.5	86.6	87.0	82.3	77.3	73.9	72.1	69.2	64.6	60.3	55.5	57.9	59.8	61.2	79.2	82.1	85.0	86.2	88.4	88.5	55.5	76.8
8	90.1	96.9	96.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.3	90.6	84.3	77.9	74.0	71.1	69.7	70.5	71.5	73.0	76.6	80.0	85.7	100.0	69.7	87.7
9	89.5	91.3	95.5	98.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.2	91.6	85.6	84.0	81.1	82.8	91.9	97.2	100.0	100.0	81.1	95.2
10	100.0	98.9	99.4	99.6	98.0	94.0	90.6	89.5	91.9	93.6	86.9	80.9	75.9	72.7	65.0	63.0	61.7	65.5	69.0	70.6	70.4	78.8	84.1	86.8	100.0	61.7	82.8
11	90.8	87.2	81.6	79.9	79.7	80.2	84.2	82.7	78.0	70.6	64.1	60.4	58.1	55.4	54.4	53.2	52.8	55.5	59.4	63.2	69.6	78.6	85.3	89.2	90.8	52.8	71.4
12	91.6	91.9	90.3	90.4	91.0	91.4	91.5	89.7	84.3	78.1	68.8	65.4	65.6	61.5	61.4	65.3	63.0	64.2	67.9	70.0	78.4	84.1	89.6	91.4	91.9	61.4	78.6
13	91.9	92.7	99.1	99.7	99.3	99.8	100.0	100.0	100.0	100.0	100.0	97.8	99.5	99.9	99.0	99.3	98.7	98.4	97.2	93.9	98.5	97.6	97.7	94.8	100.0	91.9	98.1
14	83.7	80.3	78.9	78.6	75.8	73.4	74.3	74.2	72.8	68.9	63.1	61.3	57.4	67.5	82.7	84.0	90.2	89.6	84.5	83.4	85.3	87.5	91.7	91.6	91.7	57.4	78.4
15	92.8	92.9	88.5	91.3	93.1	92.4	94.9	90.8	87.1	84.2	81.8	75.9	72.2	65.8	73.0	73.7	69.9	68.5	69.2	67.7	63.9	72.4	77.7	83.2	94.9	63.9	80.1
16	87.1	87.0	84.5	84.1	84.6	84.8	83.1	79.0	74.3	66.6	55.3	48.3	46.3	43.2	44.9	49.9	53.0	56.1	60.8	65.7	79.9	93.6	98.1	97.8	98.1	43.2	71.2
17	98.2	97.6	99.8	100.0	100.0	100.0	100.0	100.0	99.3	96.4	83.3	65.7	58.7	58.4	63.9	62.1	62.1	65.0	66.2	72.2	77.9	84.4	87.2	90.9	100.0	58.4	82.9
18	93.5	92.6	91.3	90.8	89.8	89.9	85.7	86.0	83.5	73.1	66.5	60.8	57.4	54.5	54.2	53.6	51.9	49.6	49.0	50.2	55.0	57.6	59.4	60.7	93.5	49.0	69.0
19	60.5	64.3	71.2	75.4	80.8	84.9	85.3	81.4	74.6	71.7	66.5	63.1	62.4	63.2	61.3	60.7	56.3	56.3	59.7	64.5	67.7	70.5	76.5	77.7	85.3	56.3	69.0
20	81.6	81.4	80.8	78.4	80.1	82.4	74.3	76.8	77.9	71.7	69.9	67.0	65.7	64.3	64.9	64.4	61.3	57.8	55.2	57.4	63.8	67.9	78.4	82.1	82.4	55.2	71.1
21	81.2	71.8	75.1	70.1	72.3	68.1	64.3	63.7	61.6	55.9	49.2	46.8	44.0	47.2	45.1	41.1	45.8	43.3	44.7	47.1	50.3	56.2	60.0	61.3	81.2	41.1	56.9
22	63.4	62.6	64.2	68.2	68.7	64.6	65.1	63.2	65.1	58.9	77.0	69.9	63.3	49.5	55.2	63.4	51.1	41.9	42.1	60.7	69.3	69.5	66.9	67.7	77.0	41.9	62.1
23	73.2	75.6	67.9	66.5	68.2	69.4	67.3	65.9	63.7	63.7	62.0	61.6	64.2	64.7	65.9	66.8	73.5	71.3	75.8	80.7	84.5	83.5	88.4	90.4	90.4	61.6	71.4
24	95.9	98.1	100.0	99.9	99.0	99.8	98.0	96.5	94.3	90.6	88.8	86.0	87.5	80.0	79.4	80.0	89.4	88.2	86.4	77.5	79.5	84.1	88.5	92.4	100.0	77.5	90.0
25	95.3	92.0	92.5	88.9	87.2	85.8	85.2	83.9	86.1	90.2	93.9	96.5	99.8	100.0	100.0	100.0	100.0	100.0	99.8	98.4	97.8	99.3	98.9	100.0	100.0	83.9	94.6
26	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.0	91.7	88.6	86.7	92.5	93.9	95.1	92.3	87.9	85.2	89.2	92.1	100.0	85.2	95.5
27	95.2	97.9	100.0	100.0	100.0	100.0	100.0	100.0	98.7	91.1	80.8	76.3	73.8	70.3	72.7	68.9	70.5	70.5	71.2	72.6	75.2	79.9	91.0	96.8	100.0	68.9	85.6
28	95.8	97.7	97.9	98.1	96.4	99.3	97.4	92.5	89.5	81.1	75.7	68.3	65.1	69.3	58.7	62.2	71.4	70.8	76.3	74.6	77.7	82.7	89.3	94.3	99.3	58.7	82.6
29	86.6	86.4	85.2	84.3	82.0	88.5	93.1	92.3	87.6	79.7	72.1	59.6	48.5	46.2	52.2	50.7	52.3	52.4	55.9	62.2	69.3	78.8	80.8	93.1	46.2	70.8	
30	79.4	77.1	77.7	81.7	83.7	85.9	86.4	88.0	86.2	82.6	74.2	69.7	66.4	64.5	63.7	60.5	63.1	70.5	76.5	81.8	85.0	86.5	91.3	95.8	95.8	60.5	78.3
31	100.0	100.0	99.8	91.9	87.9	87.1	87.7	88.2	83.9	86.6	81.6	67.0	70.5	77.8	78.8	74.4	73.7	71.2	71.4	72.1	78.4	82.3	85.8	89.5	100.0	67.0	82.8
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	98.4	98.5	99.3	98.9	100.0	100.0		
Min.	56.6	55.1	56.1	63.8	68.2	64.6	64.3	63.2	61.6	55.9	49.2	46.8	44.0	43.2	44.9	41.1	45.8	41.9	42.1	47.1	50.3	56.2	59.4	60.7		41.1	
Avg.	86.3	86.5	86.6	87.0	87.3	88.0	87.8	86.9	85.2	81.9	78.0	74.1	71.3	69.2	69.2	67.7	67.7	68.7	69.9	72.5	75.9	79.9	83.8	86.3			79.1
Total Hours in Month	744																								Data Recovery		99.6%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

Day	2007																								Max.	Min.	Avg.	
	June																											
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300				
1	88.0	86.6	88.5	89.5	91.1	90.4	90.1	86.9	83.2	78.2	75.7	73.7	77.2	76.0	81.6	76.6	73.8	76.9	78.4	81.1	79.4	81.7	88.3	91.7	91.7	73.7	82.7	
2	92.3	92.7	90.6	91.5	93.6	95.5	93.2	92.0	89.3	88.2	85.7	80.3	76.4	71.7	66.1	59.0	57.2	57.6	59.9	62.2	72.5	81.2	82.4	95.5	57.2	78.7		
3	86.7	87.5	86.2	90.0	91.2	93.2	92.8	93.2	93.1	91.8	85.8	81.6	75.7	71.4	67.2	65.0	58.8	56.2	61.5	58.1	61.1	62.5	67.1	73.1	93.2	56.2	77.1	
4	78.9	83.2	87.4	90.2	89.7	91.0	89.0	88.5	88.6	94.8	98.8	99.9	100.0	98.1	92.6	89.3	94.4	92.6	94.9	100.0	100.0	100.0	100.0	100.0	100.0	78.9	93.4	
5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	92.0	82.9	77.9	78.0	77.7	75.2	73.9	77.4	80.4	79.8	80.8	83.7	85.0	100.0	73.9	89.3	
6	87.2	87.3	85.7	85.0	85.6	83.6	86.3	85.3	80.2	73.0	62.9	54.6	49.8	60.5	59.2	66.2	67.9	70.2	70.5	72.7	80.0	86.3	88.7	91.3	91.3	49.8	75.8	
7	91.7	85.0	82.1	89.5	92.2	75.5	71.1	68.7	61.0	52.4	43.4	44.3	44.5	53.9	59.8	62.9	68.6	71.0	71.8	73.9	74.2	78.1	82.8	88.8	92.2	43.4	70.3	
8	91.0	86.5	85.7	86.7	85.6	84.8	83.2	79.4	76.4	74.8	70.6	65.1	56.8	66.4	64.3	66.6	66.5	65.4	74.1	77.6	76.9	78.9	86.3	91.4	91.4	56.8	76.7	
9	93.4	94.0	96.5	96.8	99.0	97.5	90.7	89.2	88.4	79.5	72.4	68.3	65.8	65.8	69.2	66.2	66.0	77.6	80.2	76.9	78.2	87.7	91.7	88.7	99.0	65.8	83.5	
10	86.3	84.4	85.3	85.4	85.3	84.7	85.3	85.1	78.6	72.6	68.2	58.1	51.8	47.8	44.7	40.9	38.7	38.2	38.3	39.0	43.5	67.1	80.6	94.8	94.8	38.2	66.0	
11	96.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.4	90.0	79.1	73.1	66.1	66.3	65.8	69.3	75.0	78.9	83.9	93.6	98.4	100.0	100.0	65.8	88.9	
12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.9	87.9	84.2	80.9	82.8	82.1	88.9	93.9	100.0	80.9	95.7
13	95.5	94.0	90.3	86.0	86.7	91.4	97.3	95.7	87.3	83.8	77.2	72.9	68.1	72.0	74.4	70.2	65.6	70.1	86.3	86.8	84.8	87.6	86.6	86.6	97.3	65.6	83.2	
14	86.1	86.7	88.8	92.0	88.4	86.8	87.4	86.7	80.6	77.0	72.6	67.4	61.8	61.7	66.0	68.6	80.7	78.1	71.2	70.5	72.1	74.8	75.2	76.3	92.0	61.7	77.4	
15	80.5	81.3	81.2	84.5	87.9	88.7	86.8	84.5	79.6	74.5	66.0	59.5	54.4	49.9	44.7	39.5	36.3	35.8	35.6	36.1	36.8	40.8	47.2	56.5	88.7	35.6	61.2	
16	60.3	61.7	65.9	68.8	72.0	75.7	75.7	72.5	69.4	66.3	63.8	59.6	54.3	51.4	51.3	50.9	51.4	51.8	54.1	61.6	70.0	75.6	81.3	81.3	81.3	50.9	64.4	
17	89.4	94.4	99.3	97.9	98.6	98.1	98.9	100.0	99.9	95.3	92.7	87.0	86.8	88.5	86.6	75.0	72.0	70.5	88.1	96.2	92.1	90.9	95.6	99.0	100.0	70.5	91.4	
18	98.8	99.6	100.0	99.1	99.1	100.0	100.0	99.8	98.3	93.9	86.2	80.4	75.1	76.1	71.1	63.4	62.1	74.7	64.9	82.8	75.7	82.8	87.6	87.6	100.0	62.1	85.8	
19	91.6	89.9	97.6	95.5	90.8	92.7	94.4	95.2	93.5	88.5	82.9	74.9	68.1	63.2	57.7	52.9	49.2	46.6	44.3	45.0	47.9	49.9	56.4	61.8	97.6	44.3	72.1	
20	68.0	70.8	72.2	74.1	76.1	77.2	75.1	71.3	66.6	62.0	55.8	51.2	47.0	44.0	41.6	38.9	32.7	33.1	36.6	37.0	40.2	48.0	54.4	62.0	77.2	32.7	55.7	
21	64.1	60.0	61.9	67.4	70.4	72.6	75.4	74.3	71.4	68.8	64.9	61.1	59.9	56.1	50.7	48.7	45.0	45.6	45.5	44.9	61.6	77.7	80.0	81.6	81.6	44.9	62.9	
22	85.7	86.5	96.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.7	98.7	
23	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.9	92.3	94.6	100.0	92.3	99.3	
24	97.2	96.5	93.9	94.3	95.1	93.1	91.5	88.2	85.6	87.5	90.8	89.3	86.1	90.9	90.7	90.2	89.5	89.3	90.8	88.2	85.8	87.0	88.9	89.3	97.2	85.6	90.4	
25	91.4	91.3	92.9	93.3	94.7	95.8	94.2	93.5	91.3	86.5	80.9	80.6	82.1	85.9	83.0	78.5	75.0	75.7	76.9	77.8	79.3	80.8	84.2	88.3	95.8	75.0	85.6	
26	88.5	90.9	92.5	93.0	91.4	92.1	91.1	86.9	83.7	79.0	73.1	70.4	66.7	62.3	58.2	54.5	51.8	51.0	49.9	52.8	55.0	64.0	76.6	84.1	93.0	49.9	73.3	
27	85.3	86.0	86.2	87.5	86.4	87.1	87.6	85.3	78.4	68.8	64.7	62.3	63.3	58.4	52.6	49.0	47.0	49.6	46.3	51.5	57.7	64.6	74.4	79.8	87.6	46.3	69.2	
28	82.3	86.7	92.3	93.4	96.0	96.4	97.0	97.5	99.4	99.7	96.6	94.1	97.6	98.6	91.7	85.4	82.2	83.9	83.3	79.4	75.7	77.1	78.5	77.4	99.7	75.7	89.3	
29	76.3	76.8	80.7	80.4	79.4	80.8	82.5	80.2	77.8	71.8	71.5	68.0	65.7	61.2	62.7	64.6	64.6	63.9	69.2	70.8	75.7	80.9	84.2	89.1	89.1	61.2	74.1	
30	90.0	91.9	97.0	97.8	99.9	100.0	100.0	100.0	98.7	96.2	89.1	86.4	83.6	78.5	78.3	75.5	74.8	73.5	76.0	76.1	81.1	90.4	92.8	93.6	100.0	73.5	88.4	
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Min.	60.3	60.0	61.9	67.4	70.4	72.6	71.1	68.7	61.0	52.4	43.4	44.3	44.5	44.0	41.6	38.9	32.7	33.1	35.6	36.1	36.8	40.8	47.2	56.5		32.7		
Avg.	87.4	87.7	89.2	90.3	90.9	90.8	90.6	89.3	86.7	83.8	79.9	75.9	72.8	72.0	70.3	68.1	67.0	67.7	69.4	71.2	73.1	78.0	82.5	85.7		80.0		
Total Hours in Month	720												Hours Data Available										Data Recovery				100.0%	

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

Day	July												2007												Max.	Min.	Avg.
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300			
1	95.6	94.8	94.2	91.2	92.4	97.7	98.6	97.1	99.8	93.1	80.5	74.7	69.5	67.1	70.9	69.1	66.8	66.6	67.7	69.9	73.3	76.3	78.6	87.9	99.8	66.6	82.2
2	89.2	91.5	93.9	96.0	96.7	98.6	93.6	94.7	88.6	78.5	73.6	67.7	62.1	61.1	62.7	58.7	61.4	60.3	60.7	61.2	65.5	74.1	81.9	87.5	98.6	58.7	77.5
3	90.3	91.6	95.4	94.7	99.9	91.1	86.4	82.4	77.6	78.5	78.4	77.8	74.1	70.9	68.4	64.6	60.6	60.1	62.3	80.8	84.8	84.3	86.7	84.9	99.9	60.1	80.3
4	85.3	89.9	98.9	100.0	100.0	100.0	100.0	100.0	99.0	94.8	91.6	85.5	82.6	85.8	83.3	81.3	77.3	82.1	88.3	89.8	88.4	87.8	89.1	90.7	100.0	77.3	90.5
5	95.1	99.7	100.0	99.6	97.1	92.2	89.2	90.2	87.9	83.4	81.3	77.0	74.4	77.8	74.6	70.0	72.7	84.7	80.1	93.7	100.0	100.0	100.0	100.0	100.0	70.0	88.4
6	100.0	96.6	92.3	91.6	87.3	87.1	87.8	93.0	95.6	95.9	90.6	92.0	90.2	85.3	79.9	77.8	72.5	68.2	65.6	62.8	61.3	64.3	80.1	78.4	100.0	61.3	83.2
7	76.8	71.4	73.8	68.7	67.8	72.2	75.2	69.4	61.3	65.3	59.6	58.6	60.1	56.1	54.8	53.3	51.0	51.3	51.5	59.4	66.9	75.9	80.9	84.0	84.0	51.0	65.2
8	89.5	92.5	91.2	94.2	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	95.2	86.4	84.4	81.6	84.8	85.6	86.0	100.0	81.6	94.6
9	85.5	84.2	85.3	87.9	90.3	89.5	87.5	82.6	81.2	77.9	78.6	77.2	73.5	69.6	77.1	66.6	63.2	66.9	66.9	70.8	72.3	75.0	82.7	86.8	90.3	63.2	78.3
10	84.3	84.1	86.3	88.7	83.7	82.9	73.4	67.7	72.4	69.7	70.3	66.5	58.9	64.7	72.6	71.1	66.7	71.1	76.8	80.5	86.3	92.7	93.2	93.8	93.8	58.9	77.4
11	95.1	93.6	89.8	88.4	91.5	88.2	89.8	92.4	93.7	83.6	73.9	64.6	59.5	57.5	55.9	56.1	57.0	54.1	52.1	52.9	57.2	66.9	73.2	76.3	95.1	52.1	73.5
12	76.4	79.8	82.8	81.1	76.7	82.0	86.3	88.8	86.2	77.1	70.3	65.5	65.3	61.8	58.7	70.2	84.7	99.3	100.0	100.0	99.9	98.1	99.9	95.6	100.0	58.7	82.8
13	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	98.1	94.9	90.8	94.2	95.2	98.2	96.0	99.7	100.0	90.8	98.6
14	95.8	99.2	98.6	97.1	98.9	99.9	100.0	100.0	100.0	98.1	92.3	88.7	84.8	86.0	82.6	84.5	88.1	90.0	91.3	93.2	97.9	97.7	99.7	100.0	100.0	82.6	94.4
15	100.0	100.0	99.9	99.9	98.6	99.2	99.8	100.0	100.0	99.4	98.7	98.9	90.4	83.5	74.2	72.8	71.1	72.3	72.5	71.7	74.7	78.8	83.0	83.4	100.0	71.1	88.5
16	84.8	88.0	89.7	93.5	98.9	99.8	100.0	100.0	99.0	94.8	91.7	83.5	75.2	67.8	69.9	66.1	66.8	64.4	62.3	62.5	67.5	74.1	78.1	88.5	100.0	62.3	82.0
17	94.5	89.6	85.2	88.8	90.6	91.3	90.9	89.6	86.3	81.3	74.2	68.1	62.1	59.7	60.5	59.3	55.5	48.6	61.6	72.8	81.4	85.6	91.2	96.4	96.4	48.6	77.7
18	95.9	92.7	91.7	93.5	93.9	97.2	99.1	98.0	91.9	86.7	81.5	78.8	73.7	68.0	68.8	79.3	81.6	87.0	90.6	90.9	87.7	83.0	83.0	82.4	99.1	68.0	86.5
19	85.5	88.9	93.0	93.8	96.1	93.9	93.7	91.7	86.5	83.4	81.2	78.9	73.0	64.3	63.5	65.8	65.6	63.5	70.7	68.2	68.9	71.2	70.9	67.4	96.1	63.5	78.3
20	69.7	73.5	73.5	74.3	73.5	77.5	76.4	79.1	80.2	80.0	75.3	79.2	80.0	77.4	72.4	76.2	73.8	68.1	66.1	69.6	71.3	80.9	91.6	96.2	96.2	66.1	76.5
21	98.1	96.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	92.3	88.2	86.1	86.1	88.4	94.5	99.3	100.0	100.0	100.0	100.0	100.0	86.1	97.0
22	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.1	99.9	99.1	98.1	100.0	100.0	100.0	100.0	100.0	100.0	98.1	99.8
23	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.2	97.0	96.9	99.1	100.0	99.2	100.0	96.9	99.6
24	100.0	100.0	99.2	96.2	93.5	95.2	94.1	95.2	98.0	100.0	92.5	85.2	86.6	91.6	88.2	86.7	83.6	83.2	87.7	87.5	85.2	79.7	76.5	75.9	100.0	75.9	90.1
25	73.2	73.0	72.6	73.1	72.3	69.4	71.7	69.1	68.9	64.5	63.4	62.5	59.2	58.4	58.4	58.8	59.6	61.0	64.1	63.9	64.0	67.0	72.1	73.9	73.9	58.4	66.4
26	75.9	72.7	69.1	72.3	85.9	84.6	84.5	81.6	81.7	80.9	77.1	67.1	60.6	54.6	50.1	48.9	56.1	52.8	52.3	53.0	56.1	60.7	66.0	67.7	85.9	48.9	67.2
27	66.9	68.3	72.9	72.9	75.7	77.3	79.3	81.6	83.7	80.2	73.3	72.8	70.8	65.8	63.8	59.5	57.5	54.4	58.5	68.6	76.7	78.5	86.2	79.8	86.2	54.4	71.9
28	77.1	80.5	77.7	82.6	96.5	99.6	99.3	100.0	100.0	96.8	91.4	83.9	78.5	72.5	67.4	64.1	63.8	63.3	64.2	66.7	70.0	81.6	87.3	99.0	100.0	63.3	81.8
29	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	85.4	73.4	69.5	66.7	64.6	64.8	60.9	62.9	64.8	70.8	71.7	80.7	81.8	100.0	60.9	84.1
30	84.1	83.5	86.9	88.5	92.6	98.6	100.0	100.0	100.0	100.0	100.0	100.0	96.2	92.0	88.4	83.4	83.4	80.0	82.0	86.2	87.9	90.6	94.1	97.9	100.0	80.0	92.2
31	99.1	97.7	98.9	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	90.7	86.1	82.3	84.4	87.7	89.3	87.7	88.9	89.8	100.0	82.3	95.0
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Min.	66.9	68.3	69.1	68.7	67.8	69.4	71.7	67.7	61.3	64.5	59.6	58.6	58.9	54.6	50.1	48.9	51.0	48.6	51.5	52.9	56.1	60.7	66.0	67.4		48.6	
Avg.	89.1	89.5	90.1	90.6	91.9	92.4	92.1	91.7	91.0	88.5	85.2	81.9	78.6	76.3	74.9	73.9	73.4	73.4	74.6	77.5	80.0	82.8	86.4	88.1		83.9	

Total Hours in Month 744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	90.9	92.5	93.2	92.9	93.5	95.5	99.3	100.0	97.8	95.3	93.8	90.1	85.9	85.4	84.5	87.9	87.2	87.2	90.5	89.2	89.7	90.8	93.7	92.3	100.0	84.5	91.6
2	93.0	94.2	95.6	94.2	95.8	94.8	91.4	92.6	97.5	98.9	95.8	99.0	99.9	100.0	100.0	98.6	98.3	99.7	99.9	100.0	97.8	95.2	96.9	97.2	100.0	91.4	96.9
3	97.5	99.5	99.5	97.7	99.0	99.5	99.4	100.0	100.0	99.9	99.4	98.2	99.3	95.3	93.6	91.0	87.0	87.3	89.5	93.2	98.2	100.0	100.0	100.0	100.0	87.0	96.8
4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	98.6	98.2	97.8	100.0	97.8	99.8
5	96.2	95.5	96.4	96.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.5	99.3
6	100.0	100.0	99.3	97.8	95.4	95.0	98.2	97.1	95.8	88.8	84.1	81.8	77.0	73.2	69.5	68.5	70.7	66.7	68.0	69.5	73.3	81.5	84.1	91.3	100.0	66.7	84.4
7	96.2	95.9	97.8	98.6	97.9	96.7	99.8	100.0	96.3	90.5	82.1	75.9	73.7	68.5	65.0	64.2	64.1	63.4	61.0	64.2	67.4	73.6	81.3	84.9	100.0	61.0	81.6
8	88.8	91.3	92.4	93.5	97.7	99.3	100.0	100.0	100.0	100.0	92.1	81.9	74.6	67.0	63.6	59.1	56.8	57.5	57.2	57.9	63.6	73.2	79.3	84.1	100.0	56.8	80.5
9	85.9	87.3	86.6	87.0	85.7	88.1	91.8	91.6	86.7	80.8	78.9	72.9	65.5	60.5	55.7	47.5	49.9	57.9	60.3	63.5	63.8	67.2	64.9	58.6	91.8	47.5	72.4
10	65.5	73.8	71.7	68.0	69.4	68.2	68.8	69.9	70.8	68.8	68.4	64.6	57.5	55.1	50.9	45.6	44.8	45.0	45.5	43.2	49.3	51.9	56.6	55.8	73.8	43.2	59.5
11	61.2	55.3	56.2	60.6	58.8	63.8	66.8	69.7	72.9	72.2	70.0	66.1	62.3	65.8	63.8	67.3	68.7	61.1	61.0	70.2	74.1	75.0	73.4	75.4	75.4	55.3	66.3
12	80.1	77.7	83.8	88.2	93.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	96.9	91.8	89.1	81.4	72.3	71.1	67.8	70.3	75.8	81.9	86.9	100.0	67.8	87.8	
13	87.5	85.8	87.8	87.3	87.8	88.4	87.9	90.6	93.7	92.7	87.0	78.4	73.3	69.2	69.7	69.1	69.0	67.4	69.8	71.2	80.8	89.7	85.7	88.3	93.7	67.4	81.6
14	97.2	100.0	99.7	97.3	88.7	90.9	89.8	86.7	92.2	96.9	98.8	99.7	99.9	99.8	98.4	93.3	98.8	97.9	97.4	99.0	94.4	99.2	100.0	100.0	100.0	86.7	96.5
15	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.0	95.2	91.7	89.4	91.2	96.9	98.6	99.7	100.0	100.0	100.0	100.0	100.0	89.4	98.4
16	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	86.6	75.9	71.4	65.4	62.9	57.9	56.5	72.7	77.8	69.9	85.7	87.8	87.5	100.0	56.5	85.7
17	87.3	89.8	93.0	96.5	100.0	90.8	88.6	91.8	91.6	88.2	79.7	74.2	75.3	74.6	75.1	74.5	76.3	71.3	70.7	73.8	80.0	84.6	85.9	87.2	100.0	70.7	83.4
18	87.1	83.4	80.6	80.5	87.5	95.0	92.1	92.6	94.8	93.7	92.5	93.0	92.3	93.5	84.2	79.2	79.4	76.8	78.7	79.5	79.8	80.5	78.6	75.8	95.0	75.8	85.5
19	74.5	73.4	73.5	78.3	75.4	76.9	76.5	77.0	78.0	76.4	75.2	72.4	70.0	70.9	72.0	72.9	71.6	75.1	80.0	86.3	94.1	97.1	99.6	100.0	100.0	70.0	79.0
20	99.6	96.4	97.1	99.7	100.0	100.0	99.0	97.3	97.5	100.0	100.0	100.0	98.3	93.2	89.6	84.3	80.3	77.8	78.1	81.2	84.1	89.3	91.6	92.1	100.0	77.8	92.8
21	91.5	90.4	88.0	90.3	94.3	95.7	96.6	97.3	100.0	100.0	99.9	99.8	99.9	100.0	99.7	98.9	95.0	96.3	94.4	92.8	93.2	95.8	97.6	98.5	100.0	88.0	96.1
22	96.6	94.1	94.9	97.2	99.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.6	99.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.1	99.2
23	100.0	100.0	100.0	98.2	92.3	89.1	91.7	95.8	98.9	100.0	99.9	97.6	95.5	93.5	89.5	86.9	84.5	82.3	81.9	82.9	87.1	88.7	88.9	89.4	100.0	81.9	92.3
24	88.8	88.7	88.1	89.6	92.7	94.0	95.7	97.5	96.9	93.5	89.1	85.4	81.0	77.8	75.2	76.3	83.6	71.0	84.2	92.0	99.0	100.0	100.0	99.9	100.0	71.0	89.2
25	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.7	83.8	78.5	67.7	67.1	68.4	73.5	83.2	89.2	88.8	83.3	100.0	67.1	90.9
26	79.5	80.9	81.7	79.9	81.1	81.2	81.4	81.6	83.8	82.0	78.8	74.4	73.1	72.9	72.5	74.6	75.2	70.4	65.8	72.9	78.1	81.4	83.6	85.7	85.7	65.8	78.0
27	83.0	81.6	82.2	75.9	78.0	83.0	82.4	82.1	75.6	75.5	67.6	59.6	55.8	51.3	50.7	53.3	52.3	58.7	59.0	59.8	66.0	68.0	65.4	64.9	83.0	50.7	68.0
28	66.1	74.4	75.1	73.7	68.0	65.9	66.0	66.4	67.4	63.2	59.9	55.5	53.7	46.6	45.2	46.8	46.0	46.3	44.9	47.7	58.4	70.4	79.9	84.3	84.3	44.9	61.3
29	87.7	90.1	91.2	93.9	96.6	100.0	100.0	100.0	100.0	100.0	99.6	95.4	92.2	82.7	74.9	71.8	69.9	69.8	71.6	70.1	75.0	85.0	89.7	92.7	100.0	69.8	87.5
30	93.4	95.0	97.3	98.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.9	79.6	76.7	73.7	69.0	67.7	64.8	63.2	65.4	77.2	85.5	89.1	91.7	100.0	63.2	86.7
31	93.4	95.9	95.9	97.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	89.6	76.1	69.2	64.8	64.8	72.9	73.0	76.8	71.1	79.9	83.5	88.1	87.6	100.0	64.8	88.1
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Min.	61.2	55.3	56.2	60.6	58.8	63.8	66.0	66.4	67.4	63.2	59.9	55.5	53.7	46.6	45.2	45.6	44.8	45.0	44.9	43.2	49.3	51.9	56.6	55.8		43.2	
Avg.	89.3	89.8	90.3	90.6	91.2	92.0	92.4	92.8	93.2	92.2	90.0	86.9	83.9	81.0	78.0	76.3	75.7	74.8	76.1	77.9	81.5	85.7	87.4	88.1			85.7

Total Hours in Month 744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	77.8	74.6	78.4	87.8	92.3	94.4	96.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.7	85.0	82.6	82.9	86.2	91.7	97.5	100.0	99.9	100.0	74.6	92.6	
2	99.9	99.8	98.8	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.6	91.0	82.3	74.3	71.8	74.7	82.6	88.3	90.5	94.2	96.7	99.5	100.0	100.0	71.8	93.4	
3	100.0	97.4	97.8	97.9	96.4	95.3	93.9	92.4								95.0	95.7	95.3	94.3	94.2	92.2	88.7	84.5	81.4	100.0	81.4	93.7	
4	83.0	81.4	79.2	79.9	84.3	82.7	82.9	78.2	75.6	72.2	68.5	68.2	64.8	60.4	59.1	54.2	54.7	70.8	64.2	74.4	82.3	82.6	85.1	82.8	85.1	54.2	73.8	
5	79.6	82.8	83.7	82.5	84.2	84.6	82.2	81.4	80.3	82.1	78.2	68.8	68.2	69.0	67.7	63.8	80.0	87.8	87.5	85.5	84.8	85.5	88.0	88.3	88.3	63.8	80.3	
6	88.9	93.1	96.5	93.8	93.4	91.4	90.6	96.7	97.0	96.3	93.4	92.6	93.3	91.5	81.8	79.0	75.5	71.1	74.3	80.5	82.5	92.0	97.6	98.7	98.7	71.1	89.2	
7	99.0	99.2	99.1	97.4	95.8	94.2	92.8	92.4	90.4	88.1	88.8	90.7	90.1	89.2	87.4	83.6	83.6	84.2	85.1	94.8	96.3	96.7	96.7	96.8	99.2	83.6	92.2	
8	97.7	98.3	98.7	98.9	99.0	99.1	98.3	96.2	94.8	96.6	97.7	98.9	99.1	99.2	99.3	99.1	99.2	99.0	98.8	98.5	97.8	98.5	99.2	99.3	99.3	94.8	98.4	
9	99.3	99.2	98.5	95.7	94.6	92.3	91.6	95.3	97.7	95.9	96.1	94.9	96.2	96.5	96.1	93.9	90.7	85.1	85.1	93.4	95.6	95.6	96.2	98.2	99.3	85.1	94.7	
10	95.9	96.8	96.7	95.5	98.2	98.4	99.1	98.5	96.8	94.5	94.0	91.9	88.9	88.9	88.9	87.9	88.3	82.3	79.3	77.7	78.2	81.0	81.7	82.2	99.1	77.7	90.1	
11	82.7	82.9	83.6	84.5	84.7	86.9	87.4	88.5	87.6	86.7	84.9	89.7	85.6	89.9	96.8	87.0	96.2	94.5	97.0	97.3	96.7	95.0	94.4	96.0	97.3	82.7	90.3	
12	96.4	97.2	97.5	98.2	98.6	99.1	99.3	99.3	99.4	99.4	98.2	92.6	76.7	68.4	65.8	65.2	69.1	83.8	90.1	89.0	92.5	93.3	92.7	92.8	99.4	65.2	89.8	
13	91.7	96.5	98.7	98.9	98.2	99.1	98.6	96.8	98.7	98.4	96.1	96.7	97.0	91.0	89.1	94.8	95.9	93.8	93.4	93.6	96.4	98.9	99.2	95.3	99.2	89.1	96.1	
14	97.1	98.2	99.1	99.6	99.7	99.8	99.9	99.8	99.2	96.6	92.8	92.9	87.6	82.6	72.9	67.9	70.8	72.9	77.0	87.1	88.8	93.4	94.8	97.5	99.9	67.9	90.3	
15	95.6	96.7	95.9	95.5	96.5	96.6	96.7	98.3	100.0	100.0	96.2	88.1	79.1	77.3	73.9	74.7	71.1	63.8	61.9	69.7	77.3	80.8	85.2	92.3	100.0	61.9	86.0	
16	97.5	98.8	98.4	94.8	97.5	96.8	96.9	92.4	94.2	97.9	94.4	82.9	75.4	70.9	65.2	66.2	62.6	63.4	64.0	75.3	90.9	91.5	87.4	85.9	98.8	62.6	85.0	
17	85.6	81.2	81.5	89.1	91.0	96.1	94.4	95.1	95.1	98.4	98.2	94.6	91.9	89.0	85.0	83.2	84.3	84.6	84.6	88.4	94.6	96.6	94.3	93.0	98.4	81.2	90.4	
18	89.3	90.8	93.2	94.4	92.8	92.8	93.3	91.0	89.2	89.1	88.1	86.4	83.2	91.8	94.6	97.7	98.5	98.5	98.7	98.3	98.5	98.9	99.0	99.1	99.1	83.2	93.6	
19	98.5	96.4	96.1	94.8	92.9	95.2	95.9	96.3	95.7	97.0	95.2	95.2	95.9	96.1		87.4	90.7	94.5	93.5	95.1	97.1	97.4	97.3	97.5	98.5	87.4	95.3	
20	98.1	98.3	98.3	98.7	98.9	98.7	98.8	98.9	99.0	98.4	96.4	96.9	98.4	97.3	92.0	88.0	84.7	84.7	88.0	92.3	94.9	93.3	94.0	96.2	99.0	84.7	95.1	
21	98.5	99.1	97.3	98.5	99.0	99.2	97.7	97.0	97.2	97.3	95.5	91.0	88.2	84.7	79.3	81.4	80.0	74.2	82.4	82.8	89.8	91.9	91.8	92.7	99.2	74.2	91.1	
22	93.8	95.5	94.3	97.3	94.3	96.2	97.4	97.4	91.2	86.8	90.1	89.3	85.5	79.6	73.2	74.1	72.6	73.1	83.1	92.7	97.4	98.4	96.3	98.2	98.4	72.6	89.5	
23	99.4	99.2	98.9	97.6	93.9	89.8	90.1	90.0	89.1	92.1	93.4	91.0	89.4	86.8	87.6	87.7	95.3	98.8	99.1	99.2	98.8	97.8	97.8	97.1	99.4	86.8	94.2	
24	96.1	96.1	98.3	97.4	92.3	90.7	91.4	93.5	98.2	99.3	97.8	96.3	92.9	91.2	89.2	91.3	87.3	87.9	91.5	91.7	98.6	99.7	99.4	98.3	99.7	87.3	94.4	
25	97.1	93.0	96.3	99.3	99.7	99.7	99.6	98.7	97.6	96.8	91.6	92.1	92.4	91.2	90.6	89.1	92.5	92.4	91.9	96.1	95.3	93.6	95.0	96.6	99.7	89.1	94.9	
26	97.5	98.2	99.3	99.8	99.9	100.0	100.0	100.0	100.0	99.4	93.3	84.3	82.6	87.0	90.2	90.0	94.0	88.8	88.9	94.2	95.4	94.8	95.3	94.5	100.0	82.6	94.5	
27	95.9	95.7	92.9	94.3	91.0	87.6	90.0	93.1	92.9	98.2	98.8	99.7	98.8	96.6	89.2	85.9	92.4	83.2	85.8	87.3	84.5	85.1	88.3	94.3	99.7	83.2	91.7	
28	94.7	95.7	97.4	98.3	98.8	98.6	98.2	96.9	95.7	96.3	96.8	95.8	96.6	96.4	96.6	96.3	96.2	92.6	92.7	96.0	95.6	90.1	84.1	89.7	98.8	84.1	95.3	
29	96.4	96.0	95.8	94.6	95.5	96.9	96.3	95.3	92.9	92.2	89.8	85.9	86.2	83.9	84.6	86.8	89.1	94.5	98.0	99.1	98.1	95.6	96.6	94.5	99.1	83.9	93.1	
30	92.8	93.9	96.0	98.1	99.6	99.7	100.0	100.0	100.0	100.0	100.0	99.9	98.0	94.9	94.2	96.7	96.2	96.8	98.3	97.1	98.2	99.8	99.2	99.7	100.0	92.8	97.9	
Max.	100.0	99.8	99.3	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.1	99.2	99.0	99.1	99.2	98.8	99.8	100.0	100.0	100.0		
Min.	77.8	74.6	78.4	79.9	84.2	82.7	82.2	78.2	75.6	72.2	68.5	68.2	64.8	60.4	59.1	54.2	54.7	63.4	61.9	69.7	77.3	80.8	81.7	81.4		54.2		
Avg.	93.9	94.1	94.5	95.1	95.1	95.1	95.0	95.0	94.7	94.7	93.3	91.2	88.7	87.0	84.4	84.1	84.9	85.3	86.7	89.9	92.5	93.4	93.7	94.3			91.5	

Total Hours in Month 720

Hours Data Available 712

Data Recovery 98.9%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	99.7	99.2	99.7	99.0	97.8	95.8	92.7	92.4	93.8	94.7	97.5	97.8	95.6	91.3	86.9	86.2	83.7	85.9	95.1	93.1	94.9	90.3	91.7	92.3	99.7	83.7	93.6
2	94.1	93.8	94.3	95.7	95.9	97.1	97.5	97.7	98.5	99.4	99.3	98.9	97.6	93.7	90.6	90.0	86.7	80.4	77.8	85.5	86.4	90.4	95.2	98.9	99.4	77.8	93.1
3	99.9	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.4	86.3	81.1	83.0	81.0	79.1	73.5	71.9	78.9	81.1	80.3	77.6	73.2	100.0	71.9	89.2
4	71.1	65.0	64.4	71.7	84.0	88.2	90.3	84.0	82.9	94.3	98.8	99.6	99.3	97.0	95.3	95.4	96.1	98.3	99.2	99.8	100.0	100.0	100.0	100.0	100.0	64.4	90.6
5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.1	97.3	96.2	87.7	84.2	88.9	92.7	86.9	85.5	100.0	84.2	96.6
6	88.4	92.1	94.8	98.7	100.0	100.0	99.8	99.1	98.6	98.4	98.6	94.4	91.3	88.3	85.9	85.9	84.3	84.0	87.8	87.2	92.3	95.5	97.7	98.6	100.0	84.0	93.4
7	98.4	98.3	96.9	97.2	96.8	97.4	96.9	95.9	93.1	89.8	87.1	84.8	81.2	77.7	76.1	74.4	74.6	73.8	75.0	79.2	80.7	82.0	85.2	85.7	98.4	73.8	86.6
8	86.9	89.3	88.6	90.3	92.8	93.1	95.3	95.5	95.3	96.6	95.9	92.1	83.3	77.8	73.6	69.4	66.3	69.0	73.8	80.0	81.9	79.5	82.9	85.9	96.6	66.3	84.8
9	82.5	83.2	76.2	78.3	72.2	70.8	72.8	66.5	71.6	78.2	72.1	67.5	69.9	69.6	70.8	68.4	68.6	66.9	70.6	73.5	78.5	82.6	86.4	83.3	86.4	66.5	74.2
10	83.7	85.3	87.5	93.0	97.0	89.3	91.4	97.1	99.4	100.0	99.4	95.2	88.5	81.2	73.5	75.5	80.6	82.2	80.3	86.3	86.5	90.4	93.0	93.5	100.0	73.5	88.7
11	95.6	97.3	97.7	97.6	97.4	92.5	90.2	90.6	84.2	81.0	80.3	78.1	73.6	71.2	69.6	68.6	67.4	66.2	68.0	73.5	81.5	86.8	87.6	89.5	97.7	72.8	86.0
12	83.2	80.6	82.7	84.8	81.8	79.8	83.0	85.0	80.0	80.1	78.0	73.1	73.6	71.2	69.6	68.6	67.4	66.2	68.0	73.5	81.5	86.8	87.6	89.5	98.5	66.2	78.1
13	90.0	88.3	89.2	91.0	90.2	92.4	92.4	88.6	88.2	89.3	88.4	88.6	85.9	82.1	79.7	76.5	75.9	76.9	81.1	86.4	87.9	87.4	89.0	93.0	93.0	75.9	86.6
14	98.6	98.4	98.0	97.9	97.7	97.3	97.1	96.7	95.7	95.7	96.0	97.3	97.4	98.0	98.0	97.8	98.1	97.7	97.1	87.3	84.5	87.4	88.8	90.3	98.6	84.5	95.4
15	88.6	87.6	86.0	86.4	87.1	88.2	87.9	88.4	87.8	88.2	85.9	82.3	85.7	83.5	81.5	68.4	67.1	64.8	64.8	67.5	72.7	74.3	76.9	79.0	88.6	64.8	80.4
16	75.2	77.6	76.8	75.7	79.1	86.0	88.8	91.8	94.3	95.6	96.3	95.2	93.5	93.5	93.1	90.5	89.9	91.4	95.7	97.8	97.4	97.0	96.9	96.8	97.8	75.2	90.2
17	96.8	96.7	96.7	96.6	96.5	96.5	96.5	96.4	96.4	96.5	96.5	96.5	96.7	97.0	97.4	97.6	97.7	97.7	97.7	97.7	97.6	97.5	97.4	97.2	97.7	96.4	97.0
18	97.4	97.4	97.2	97.3	97.2	97.2	97.0	97.0	97.0	96.9	97.0	97.3	97.4	97.6	97.6	97.5	97.5	97.4	97.3	97.2	97.2	97.2	96.8	96.9	97.6	96.8	97.2
19	96.3	96.7	96.7	96.4	95.5	96.1	96.2	96.7	96.7	96.9	97.1	96.5	86.4	80.1	79.4	77.7	77.3	79.4	80.9	88.9	87.4	84.3	83.8	86.0	97.1	77.3	89.6
20	84.4	88.4	86.8	84.2	82.7	80.8	85.1	84.3	80.8	79.8	75.3	68.6	67.7	64.3	67.2	71.2	72.4	70.9	71.6	68.8	68.4	65.9	69.4	74.0	88.4	64.3	75.5
21	73.8	70.8	68.7	68.1	70.4	68.8	72.1	71.5	71.3	70.2	64.9	63.7	61.6	62.6	58.3	53.7	49.4	49.8	50.0	55.3	59.7	61.5	61.2	73.8	49.4	63.7	
22	64.6	69.3	73.9	81.7	78.4	82.2	86.9	85.3	85.9	82.2	86.5	90.3	84.4	84.1	82.7	82.9	84.8	88.7	87.3	88.3	87.8	94.1	97.9	95.5	97.9	64.6	84.4
23	95.5	93.3	89.4	88.9	90.3	92.3	94.5	97.1	97.8	98.5	96.6	97.2	98.2	98.6	97.9	98.6	98.4	98.4	97.9	96.4	96.3	96.6	90.7	75.0	98.6	75.0	94.8
24	69.4	70.5	87.9	97.8	98.2	97.8	97.8	97.7	97.7	97.7	98.4	99.0	99.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	69.4	96.2
25	100.0	100.0	100.0	99.8	95.9	90.2	96.5	96.1	94.8	94.7	94.1	94.3	93.7	97.4	98.5	98.9	99.3	99.8	99.9	99.7	99.8	100.0	100.0	100.0	100.0	90.2	97.6
26	100.0	100.0	99.7	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	96.8	96.9	97.0	94.5	91.4	90.2	91.2	91.0	89.0	89.0	100.0	89.0	96.9
27	90.8	91.1	94.4	97.7	97.2	95.5	95.6	93.2	98.9	94.8	90.8	89.0	87.6	86.2	87.8	94.9	96.7	94.2	94.1	91.6	90.7	89.8	87.8	84.8	98.9	84.8	92.3
28	90.0	93.1	91.3	90.3	88.9	86.8	87.8	92.0	99.0	98.7	100.0	100.0	100.0	100.0	99.6	99.1	99.2	97.7	99.6	100.0	100.0	99.9	99.4	94.7	100.0	86.8	96.1
29	92.9	93.6	93.3	94.0	94.3	93.6	91.8	88.2	84.5	76.7	72.3	71.9	74.1	74.1	79.4	79.1	77.6	80.1	81.4	83.8	82.8	94.5	97.5	96.0	97.5	71.9	85.3
30	93.4	88.5	88.6	94.3	94.7	93.6	96.1	96.9	98.6	100.0	100.0	100.0	100.0	100.0	99.8	98.9	99.3	97.0	93.3	91.8	94.4	94.3	96.6	96.7	100.0	88.5	96.1
31	98.2	97.5	98.6	96.1	95.2	92.5	97.4	99.1	98.7	98.4	97.9	98.0	97.2	96.1	94.9	95.1	96.7	96.4	97.4	100.0	95.5	90.8	97.9	99.8	100.0	90.8	96.9
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Min.	64.6	65.0	64.4	68.1	70.4	70.4	68.8	66.5	71.5	71.3	70.2	64.9	63.7	61.6	62.6	58.3	53.7	49.4	49.8	50.0	55.3	59.7	61.5	61.2		49.4	
Avg.	89.7	89.7	90.2	91.6	91.8	91.4	92.4	92.3	92.3	92.4	91.8	90.4	88.9	87.0	86.2	85.4	85.3	85.0	85.5	86.9	87.9	88.9	89.8	89.6			89.3

Total Hours In Month 744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	99.9	95.5	98.2	100.0	98.7	97.0	95.5	98.8	99.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	98.1	98.3	98.5	98.3	98.1	98.2	100.0	95.5	98.8	
2	98.7	98.7	98.4	97.4	93.7	93.3	93.6	96.0	97.1	94.5	92.4	90.9	92.6	94.1	98.1	98.6	97.6	97.9	98.0	97.8	97.8	97.8	97.7	97.7	98.7	90.9	96.3	
3	97.7	97.9	97.7	97.7	97.8	97.8	97.7	97.5	97.6	97.4	97.3	97.8	97.7	97.8	96.7	95.6	98.1	94.5	96.6	97.8	95.7	93.9	86.2	83.3	98.1	83.3	96.1	
4	90.9	98.9	99.5	99.3	99.2	99.6	99.7	99.5	99.5	99.2	99.0	99.2	99.6	99.1	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	90.9	99.2	
5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	95.0	92.0	100.0	92.0	99.4	
6	88.8	87.0	85.9	85.6	83.3	82.6	81.6	76.1	76.4	75.2	72.9	74.4	75.0	73.1	72.0	72.7	73.8	77.1	80.5	83.3	86.2	92.0	98.0	99.9	99.9	72.0	81.4	
7	100.0	100.0	100.0	100.0	96.8	94.3	95.4	97.2	99.0	97.2	97.8	98.4	96.1	91.2	89.7	95.0	99.2	95.7	95.2	99.7	100.0	99.3	99.9	100.0	99.9	100.0	89.7	97.4
8	100.0	100.0	100.0	100.0	99.6	98.8	99.0	95.2	93.5	98.1	97.7	95.3	96.9	99.6	99.8	96.2	88.4	83.6	89.9	91.7	93.2	98.8	100.0	100.0	100.0	100.0	83.6	96.5
9	99.6	100.0	99.8	99.0	98.5	97.4	94.6	94.8	92.7	93.1	91.8	85.9	85.9	82.6	80.5	79.1	78.6	80.2	87.4	86.1	83.6	82.2	80.3	79.2	100.0	78.6	88.9	
10	78.1	84.3	87.0	86.6	87.0	87.0	90.5	92.6	89.3	87.3	91.1	93.2	90.6	88.3	88.6	91.0	91.0	92.0	90.4	93.0	96.7	95.3	97.0	98.1	98.1	78.1	90.3	
11	98.1	98.6	98.5	97.6	97.3	98.2	97.3	96.6	95.9	95.9	95.9	96.0	95.9	95.8	95.9	95.8	95.3	95.7	95.7	95.4	95.2	94.4	95.2	95.7	98.6	94.4	96.3	
12	95.7	95.7	95.9	95.6	90.8	82.4	92.3	96.6	97.8	96.8	95.8	94.4	96.9	97.1	97.4	97.3	96.7	96.9	97.1	97.5	97.6	98.1	98.6	98.8	98.8	82.4	95.8	
13	98.9	98.9	99.0	99.0	99.1	99.2	98.9	99.2	99.4	99.4	98.8	96.5	99.6	99.8	99.8	99.0	99.3	99.5	99.4	99.3	99.3	99.4	99.5	99.6	99.6	96.5	99.2	
14	99.4	99.5	99.4	99.4	99.4	99.4	99.2	99.0	98.7	98.8	98.7	98.8	99.0	98.9	98.9	98.8	98.4	98.5	98.0	97.6	97.6	96.3	90.9	92.3	99.5	90.9	98.1	
15	98.0	98.4	96.3	88.4	89.7	90.8	90.7	90.7	94.8	94.5	94.6	93.8	93.1	92.5	92.4	92.2	91.9	91.8	91.9	91.5	91.7	91.4	91.0	91.5	98.4	88.4	92.7	
16	91.9	91.8	91.9	91.7	91.9	91.7	91.5	91.3	91.2	91.2	91.1	91.2	91.3	91.4	91.5	91.4	91.3	91.5	91.5	91.5	91.2	90.9	90.8	90.5	91.9	90.5	91.4	
17	89.9	89.9	89.8	89.7	89.7	89.7	89.4	89.3	89.3	89.3	89.0	88.9	89.0	89.1	89.2	89.2	88.8	89.1	88.0	88.0	87.7	87.7	87.1	86.8	89.9	86.8	88.9	
18	87.1	87.3	87.2	87.1	87.2	86.6	87.3	87.1	87.3	88.2	88.1	87.8	87.8	88.5	88.5	88.8	89.1	89.5	89.5	89.3	87.0	83.7	80.4	77.2	89.5	77.2	87.0	
19	74.7	72.7	69.7	64.8	60.7	58.9	57.2	50.5	62.9	88.4	94.7	95.8	95.9	89.6	83.1	81.6	85.5	89.7	89.3	92.7	99.4	99.1	99.2	99.4	99.4	50.5	81.5	
20	99.5	99.5	99.5	99.9	99.9	99.7	94.3	90.4	86.6	84.1	84.7	87.3	88.8	89.9	95.5	92.8	86.7	83.1	87.7	95.4	95.3	91.8	86.6	85.9	99.9	83.1	91.9	
21	87.1	87.8	94.4	94.5	95.0	99.5	99.8	99.8	99.4	98.2	97.4	96.9	97.3	98.6	98.9	96.0	85.8	85.0	86.2	86.4	85.1	85.5	90.0	87.2	99.8	85.0	93.0	
22	84.9	86.3	87.2	88.8	98.3	100.0	99.7	99.9	99.9	100.0	100.0	99.6	99.2	99.3	99.7	99.7	98.1	96.5	94.1	93.5	97.3	99.0	99.5	100.0	100.0	84.9	96.7	
23	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.9	99.4	99.3	99.2	99.5	99.0	97.8	98.2	97.3	96.5	95.8	98.1	99.6	98.9	97.9	97.7	97.4	100.0	95.8	98.8	
24	97.9	97.6	97.1	96.9	96.7	97.3	96.8	96.7	96.7	96.7	96.4	97.0	97.8	98.5	99.0	99.3	99.5	99.4	98.2	93.5	90.8	86.7	87.0	89.1	99.5	86.7	95.9	
25	95.4	97.3	98.7	97.1	90.2	83.2	77.5	75.5	80.6	79.4	73.0	73.7	83.6	77.1	73.8	72.2	69.2	65.5	67.4	67.3	64.6	63.2	66.1	67.7	98.7	63.2	77.5	
26	72.0	71.9	68.5	72.0	69.7	65.9	70.2	76.7	79.7	90.1	94.3	98.2	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	65.9	88.7	
27	100.0	99.6	98.5	97.3	96.8	95.5	94.6	91.2	90.2	86.3	83.3	79.6	79.1	76.5	75.9	73.9	74.7	76.6	78.3	79.0	81.4	85.3	86.8	88.1	100.0	73.9	86.2	
28	90.5	90.8	91.5	95.4	96.3	97.7	98.2	97.5	97.0	98.7	100.0	100.0	100.0	100.0	100.0	98.5	96.0	93.8	91.8	92.0	92.4	91.4	93.0	93.5	100.0	90.5	95.7	
29	93.1	93.0	91.9	92.4	91.3	92.4	93.3	92.5	90.3	88.3	87.2	85.7	82.9	80.8	78.1	77.0	77.0	77.5	79.6	79.3	77.7	74.4	73.4	73.1	93.3	73.1	84.3	
30	71.0	68.5	67.6	66.9	69.0	67.9	65.4	63.7	63.2	65.8	68.2	62.7	58.3	58.0	58.8	58.5	57.5	55.7	55.1	55.8	55.4	54.0	56.8	58.7	71.0	54.0	61.8	
Max.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
Min.	71.0	68.5	67.6	64.8	60.7	58.9	57.2	50.5	62.9	65.8	68.2	62.7	58.3	58.0	58.8	58.5	57.5	55.7	55.1	55.8	55.4	54.0	56.8	58.7		50.5		
Avg.	92.6	92.9	93.0	92.6	92.0	91.5	91.4	91.1	91.4	92.4	92.4	91.9	92.1	91.4	91.5	91.1	90.0	89.7	90.6	91.1	91.2	90.9	90.7	90.7			91.5	

Total Hours in Month 720 Hours Data Available 720 Data Recovery 100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Relative Humidity (%)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	59.4	56.0	61.8	62.7	62.1	62.9	62.7	63.4	73.5	71.7	64.4	67.3	84.2	87.8	88.0	87.5	91.2	87.4	85.5	83.7	82.0	82.0	74.1	80.2	91.2	56.0	73.8
2	82.4	83.9	87.9	76.8	70.2	72.1	81.4	76.6	77.0	69.6	71.5	72.8	70.1	67.0	54.5	61.5	63.9	69.5	69.6	69.4	69.5	54.4	41.3	40.3	87.9	40.3	68.9
3	42.4	68.8	67.0	69.5	71.4	69.7	69.0	68.9	65.2	61.4	59.5	60.7	63.2	62.5	63.0	60.0	59.9	58.8	60.6	66.0	67.5	67.3	75.0	72.0	75.0	42.4	64.5
4	72.5	67.0	66.3	66.8	64.4	77.5	91.7	87.6	93.8	96.6	96.0	96.0	96.0	96.0	96.3	96.5	96.6	96.5	96.6	96.6	96.8	96.9	97.1	97.3	97.3	64.4	89.0
5	97.4	97.4	97.4	97.5	97.3	96.8	94.9	93.4	93.1	94.4	90.7	89.1	89.5	90.5	91.2	93.3	91.7	89.4	88.9	87.2	85.2	85.5	84.6	88.2	97.5	84.6	91.9
6	92.0	91.1	93.1	94.3	94.3	96.8	97.8	96.9	96.3	96.1	97.9	98.9	99.1	99.3	99.4	99.6	99.6	99.6	97.6	99.2	99.6	99.6	99.7	99.8	99.8	91.1	97.4
7	99.8	99.8	99.7	99.6	99.6	99.5	99.1	99.0	98.7	98.1	96.7	98.0	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.2	99.2	99.4	99.5	99.8	96.7	99.2
8	99.6	99.7	99.8	99.9	99.9	99.8	99.7	99.4	99.7	99.4	97.4	92.6	92.7	96.3	99.1	99.7	99.2	97.7	97.7	98.7	98.7	98.9	99.5	99.6	99.9	92.6	98.5
9	99.6	99.3	99.7	99.8	99.7	99.6	98.8	98.8	97.0	92.6	94.0	93.5	93.0	90.3	87.5	82.9	83.3	83.4	83.8	87.3	90.1	88.5	87.1	81.9	99.8	81.9	92.1
10	77.3	69.2	66.3	62.9	63.9	78.3	85.8	86.4	88.9	94.0	93.4	93.6	97.3	93.0	96.6	98.7	99.2	99.7	99.8	99.8	99.7	99.6	99.4	99.1	99.8	62.9	89.2
11	98.9	98.7	98.5	98.2	98.2	98.1	97.7	97.2	96.9	96.8															98.9	96.8	97.9
12																											
13																											
14	89.3	88.2	88.3	88.7	88.6	89.0	88.2	87.6	86.7										94.5	94.1	93.1	92.0	90.9	89.9	94.5	89.9	92.4
15	86.8	86.9	88.2	88.8	88.8	88.5	88.5	88.4	88.2	88.5	88.4	88.3	88.5	88.5	88.5	88.3	88.4	88.4	88.4	88.5	88.4	88.4	88.4	88.3	88.8	86.8	88.3
16	88.0	87.3	87.1	86.8	86.6	86.4	86.6	86.4	86.4	86.1	85.7	85.6	85.7	85.5	85.2	85.0	84.7	84.6	84.6	84.9	85.0	84.9	84.6	84.5	88.0	84.5	85.8
17	84.1	84.2	84.2	84.2	84.4	84.3	84.4	84.5	84.5	84.5	84.4	84.3	84.3	84.5	84.4	84.1	83.7	83.3	82.9	82.6	82.4	82.2	81.7	81.8	84.5	81.7	83.7
18	81.0	81.3	81.3	80.8	80.8	80.7	80.4	80.0	80.2	79.9	79.8	79.5	79.4	79.2	79.4	79.5	79.2	78.7	78.5	78.2	78.6	78.1	77.4	77.3	81.3	77.3	79.5
19	77.2	77.3	77.6	77.6	78.2	78.8	78.5	77.4	78.2	78.5	78.2	78.4	78.2	78.5	78.7	78.1	78.0	77.6	77.7	77.2	76.6	77.4	77.7	78.2	78.8	76.6	77.9
20	77.7	80.6	80.8	81.3	81.6	83.1	85.1	85.7	86.9	87.9	88.5	88.9	90.5	91.4	92.3	93.1	93.6	94.0	94.2	94.9	95.1	95.3	95.7	95.8	95.8	77.7	88.9
21	96.2	97.3	97.6	97.8	97.9	97.9	97.9	97.5	97.2	96.9	96.8	97.1	96.9	96.8	96.9	96.4	96.2	96.5	95.8	95.7	94.2	89.4	84.9	87.7	97.9	84.9	95.6
22	92.6	88.7	90.9	92.8	93.4	96.0	95.3	94.9	96.5	94.9	93.0	92.0	91.5	92.2	92.2	97.1	95.7	94.0	92.3	93.0	91.9	95.0	95.5	96.4	97.1	88.7	93.7
23	94.9	93.1	90.7	87.3	84.0	73.1	77.6	82.2	85.0	80.1	71.9	70.5	66.4	78.6	82.9	81.4	85.4	91.1	90.0	89.4	89.2	90.8	91.0	89.5	94.9	66.4	84.0
24	88.9	88.2	88.4	87.6	87.2	87.0	86.8	86.5	86.7	86.6	86.8	87.0	87.0	87.1	86.9	86.9	86.9	87.0	86.5	86.4	86.6	87.0	86.8	86.6	88.9	86.4	87.1
25	85.8	85.2	85.1	84.9	85.0	84.5	84.5	84.1	83.7	82.8	82.4	82.5	81.9	82.1	82.2	82.2	82.0	82.0	82.4	82.4	82.9	82.4	81.2	80.1	85.8	80.1	83.1
26	78.8	76.0	73.7	67.0	55.9	45.4	42.8	62.1	56.8	63.1	67.0	59.5	59.1	45.3	41.8	54.2	73.2	78.7	84.5	84.4	80.5	78.6	77.5	76.0	84.5	41.8	65.9
27	80.0	82.1	80.6	78.3	78.9	75.6	72.6	70.8	67.6	67.5	68.7	68.8	68.8	71.4	72.3	73.6	74.8	75.5	77.5	90.6	98.1	99.3	99.5	99.0	99.5	67.5	78.8
28	99.2	97.1	96.0	95.6	95.5	94.7	95.1	94.7	91.9	91.8	94.9	95.2	94.3	93.8	93.3	92.5	91.8	90.5	89.6	89.6	89.7	89.8	90.2	90.1	99.2	89.6	93.2
29	89.8	89.5	89.6	89.5	89.2	89.1	88.9	88.9	89.0	88.2	88.8	89.2	88.3	88.3	88.7	88.4	89.1	89.4	89.7	90.4	90.5	90.6	90.7	90.7	90.7	88.2	89.4
30	90.6	90.5	90.5	90.4	90.2	89.7	89.3	89.5	88.6	87.7	87.6	87.9	88.5	88.5	88.6	89.1	89.5	89.1	88.9	88.8	89.0	89.3	89.5	89.8	90.6	87.6	89.2
31	89.8	89.8	90.1	90.4	90.2	90.1	89.8	89.6	89.3	89.1	89.1	89.3	89.3	89.6	89.5	89.5	89.8	89.6	89.6	90.4	89.5	89.2	88.8	89.8	90.4	88.8	89.6

Max.	99.8	99.8	99.8	99.9	99.9	99.8	99.7	99.4	99.7	99.4	99.4	99.4	99.4	99.4	99.4	99.7	99.6	99.7	99.8	99.8	99.7	99.6	99.7	99.8	99.9		
Min.	42.4	56.0	61.8	62.7	55.9	45.4	42.8	62.1	56.8	61.4	59.5	59.5	59.1	45.3	41.8	54.2	59.9	58.8	60.6	66.0	67.5	54.4	41.3	40.3	40.3		
Avg.	85.9	86.0	86.1	85.4	84.7	85.0	85.9	86.2	86.3	85.9	84.9	84.7	85.3	85.3	85.1	85.9	86.9	87.1	87.4	88.2	88.2	87.2	86.8	86.8	86.1		

Total Hours in Month 744 Hours Data Available 673 Data Recovery 90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.		
1	921	920	919	919	918	918	917	917	917	917	917	918	918	917	918	918	918	918	918	918	918	918	919	919	921	917	918.1		
2	919	920	920	920	920	921	921	921	921	922	922	923	923	923	923	924	924	924	924	925	925	925	926	926	926	926	919	922.7	
3	927	927	927	927	927	926	926	927	927	927	928	928	928	928	929	930	930	930	930	931	931	931	931	931	931	931	926	928.6	
4	931	931	931	931	930	930	929	928	928	927	927	928	928	928	928	928	927	927	927	927	928	928	928	928	931	927	928.5		
5	928	929	929	929	930	930	930	931	932	933	934	935	936	937	938	938	939	939	940	941	941	941	941	942	942	928	935.2		
6	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	943	943	943	943	944	944	944	944	944	942	942.5		
7	944	945	946	947	947	947	948	948	949	950	952	953	953	954	955	955	956	957	958	959	960	961	961	962	962	944	952.9		
8	963	963	964	965	965	965	965	965	965	966	967	967	966	967	967	967	967	967	967	968	968	968	968	969	970	963	966.2		
9	970	970	971	971	971	971	971	971	970	970	970	970	970	970	969	969	969	969	968	968	967	967	967	968	966	971	966	969.4	
10	966	966	966	965	964	964	964	962	962	962	961	960	959	959	958	957	957	956	956	957	956	956	956	956	956	956	956	960.3	
11	957	958	957	957	956	956	956	955	954	954	954	954	953	953	953	952	952	952	951	950	950	950	949	949	958	949	953.5		
12	948	947	946	946	946	946	945	945	944	945	946	946	945	944	943	942	941	940	940	940	941	942	942	943	948	940	943.9		
13	945	947	949	950	951	952	951	952	952	952	953	954	953	953	953	953	953	951	951	951	949	949	948	948	954	945	950.9		
14	947	946	946	945	944	944	944	944	943	943	944	944	943	944	944	944	944	944	945	946	946	947	947	948	948	943	944.9		
15	948	949	949	949	949	949	949	949	949	950	950	951	951	951	952	952	952	953	954	954	954	955	955	954	954	955	948	951.1	
16	954	954	954	953	952	951	950	949	948	947	945	945	944	943	941	940	939	938	936	937	938	939	940	941	941	954	936	944.9	
17	941	942	943	943	943	944	943	943	943	944	944	944	944	944	944	944	944	942	942	942	942	942	942	942	942	944	941	942.9	
18	942	941	940	940	939	938	937	937	936	935	935	934	933	933	933	932	932	932	932	932	932	932	932	933	942	932	935.1		
19	933	934	934	934	935	935	935	936	936	937	937	937	938	938	938	938	938	938	938	938	938	938	938	938	938	938	933	936.6	
20	938	938	938	938	937	936	936	935	935	935	935	935	934	933	932	931	930	930	929	928	928	927	926	926	938	926	933.0		
21	926	926	927	927	927	927	927	928	928	929	930	930	931	931	932	932	932	932	932	933	933	934	935	935	935	935	926	930.2	
22	936	937	938	938	939	939	939	940	940	940	941	942	942	942	942	942	942	943	943	943	944	944	944	945	945	936	941.1		
23	945	945	945	945	946	945	945	945	946	946	946	946	947	946	946	946	946	946	947	947	947	947	947	947	947	945	946.0		
24	947	947	947	947	947	948	947	948	947	948	948	949	949	950	951	951	951	950	951	951	952	951	951	952	952	947	949.2		
25	951	950	950	949	948	946	946	943	941	940	938	937	936	936	935	936	937	937	936	936	935	935	934	935	951	951	934	940.3	
26	935	934	935	935	935	933	933	934	933	934	935	936	937	939	939	940	941	942	943	944	945	946	947	948	948	933	938.4		
27	949	949	949	949	948	948	948	948	948	948	948	947	947	946	946	946	945	944	944	943	943	942	942	942	949	942	946.2		
28	942	943	943	943	943	944	944	944	945	945	947	948	949	950	950	950	950	952	952	952	953	953	953	954	954	942	947.8		
29	954	953	952	953	951	949	948	947	945	944	946	947	948	948	945	946	946	946	945	945	944	946	948	950	954	944	947.6		
30	954	955	955	956	957	958	958	958	955	953	952	951	951	949	950	950	954	954	956	956	957	958	958	960	960	949	954.8		
31	958	958	958	957	956	957	956	957	957	957	958	959	960	960	960	960	959	958	958	957	957	955	954	955	960	954	957.5		
Max.	970	970	971	971	971	971	971	971	970	970	970	970	970	970	969	969	969	968	968	968	968	968	969	970	971	971			
Min.	919	920	919	919	918	918	917	917	917	917	917	918	918	917	918	918	918	918	918	918	918	918	919	919	921	917			
Avg.	944	944	944	944	944	944	944	943	943	943	944	944	944	944	944	944	944	944	944	944	944	944	944	945	945	945	943.9		
Total Hours in Month	744																									737		99.1%	
		Hours Data Available																								Data Recovery			

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.		
1	956	956	954	953	952	951	950	950	949	949	948	947	947	942	943	940	940	941	941	938	937	940	941	942	956	937	946.1		
2	942	944	943	945	944	945	946	946	945	945	946	947	948	948	948	948	950	950	951	952	952	952	953	953	953	942	947.7		
3	954	954	955	955	954	955	955	955	955	956	956	956	957	957	957	956	956	956	956	956	955	955	956	956	957	954	955.5		
4	956	957	956	956	956	956	955	955	955	955	955	955	955	955	955	955	955	954	954	955	955	955	955	955	957	954	955.2		
5	955	956	956	956	956	956	956	956	957	957	957	957	957	958	957	957	956	956	956	956	956	956	956	955	958	955	956.3		
6	955	954	954	954	954	953	953	953	953	953	954	954	954	954	954	954	954	954	955	955	955	955	955	955	955	955	956.3		
7	955	955	955	955	955	955	955	954	954	954	954	955	955	954	955	954	954	954	954	954	954	954	954	954	955	953	954.3		
8	954	954	954	954	954	954	954	954	954	954	955	956	956	956	956	956	956	956	956	956	956	957	957	957	957	954	954.3		
9	957	957	957	958	958	958	958	958	958	958	958	959	959	959	959	959	959	960	959	960	960	960	960	960	960	957	958.7		
10	960	960	959	959	959	958	958	958	957	957	956	956	955	955	954	953	952	952	951	950	950	950	949	949	960	949	954.9		
11	948	948	947	947	946	946	946	945	945	945	945	946	946	946	945	945	945	944	944	944	945	945	945	945	948	944	945.5		
12	945	944	944	944	944	944	944	944	944	944	944	944	944	944	943	943	942	942	942	942	941	941	941	940	945	940	943.2		
13	939	939	938	937	937	935	935	935	934	934	933	933	933	933	933	932	931	932	932	933	934	934	935	935	939	931	934.5		
14	936	936	937	937	937	937	937	937	937	938	938	938	938	938	938	938	938	938	938	937	938	938	938	938	938	936	937.5		
15	938	938	938	938	938	938	938	938	938	938	939	939	939	940	940	940	941	941	941	942	942	942	943	944	944	938	939.7		
16	945	945	945	945	946	946	946	945	944	944	944	942	942	941	940	939	938	937	936	936	935	935	935	936	949	945	947.7		
17	949	948	948	948	947	946	946	945	944	944	948	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	947.7		
18	936	936	937	937	937	936	937	937	936	936	936	936	936	936	936	935	935	934	933	933	933	935	935	936	949	935	941.4		
19	933	933	934	934	933	933	933	933	933	933	933	934	934	934	934	933	934	934	934	933	933	933	933	933	937	933	935.3		
20	938	939	941	941	942	944	944	945	946	947	948	948	949	949	950	951	950	951	952	953	953	952	953	954	954	938	947.6		
21	954	955	954	954	954	953	955	955	955	955	955	954	954	954	954	954	954	954	953	954	953	953	953	952	955	952	953.9		
22	952	952	952	952	951	951	951	950	950	950	950	949	949	949	949	948	948	948	947	947	947	947	947	947	952	947	949.3		
23	947	946	946	946	947	946	947	947	948	948	948	949	949	949	950	951	951	951	952	952	953	953	953	953	953	946	949.2		
24	953	954	954	955	954	955	954	954	955	955	955	955	956	957	957	956	957	957	957	958	958	960	961	960	961	953	956.1		
25	960	961	963	963	964	965	965	966	966	966	967	967	967	967	966	967	967	966	966	966	966	967	967	967	967	960	965.4		
26	967	968	968	968	969	968	969	969	969	969	970	970	969	969	969	969	969	969	969	969	968	968	968	968	970	967	968.7		
27	967	967	967	967	966	966	965	965	964	964	964	963	963	962	962	961	961	960	960	959	959	959	958	958	967	958	962.7		
28	958	957	957	957	957	956	956	955	955	955	955	955	955	955	955	955	955	955	955	956	956	956	956	957	958	955	955.8		
Max.	967	968	968	968	969	968	969	969	969	969	970	970	969	970	969	969	969	969	969	969	968	968	968	968	970	970			
Min.	933	933	934	934	933	933	933	933	933	933	933	933	933	933	933	932	931	932	932	933	933	933	933	933	931	931			
Avg.	950	950	951	951	950	950	950	950	950	950	950	950	951	950	950	950	950	950	950	950	950	950	950	950	950	950.2	950.2		
Total Hours in Month	672																								670		99.7%		
Data Recovery																													

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	957	957	957	957	957	956	956	956	956	956	956	956	956	956	955	955	955	955	954	955	955	955	955	955	957	954	955.7	
2	955	954	955	954	955	955	955	955	955	956	956	956	956	957	956	957	956	956	957	956	955	955	955	956	957	954	955.6	
3	958	958	958	959	959	959	960	961	962	962	962	964	964	964	965	965	965	965	965	965	965	965	965	965	965	958	962.5	
4	964	964	963	963	963	963	963	962	962	962	961	961	960	959	958	957	957	956	957	957	956	956	955	955	964	955	959.7	
5	954	953	952	952	951	949	948	949	947	947	946	946	947	947	947	946	947	947	946	946	946	946	947	946	954	946	948.0	
6	947	946	946	944	943	942	941	941	941	940	939	938	937	936	934	936	935	935	935	935	935	934	935	934	947	934	938.7	
7	935	934	934	933	933	936	934	934	935	937	936	938	936	936	935	936	936	936	936	935	935	932	933	933	938	932	934.9	
8	932	933	933	933	932	932	932	932	933	934	934	933	934	934	934	933	933	933	932	932	931	931	930	932	934	930	932.5	
9	932	932	932	932	932	931	932	933	933	933	934	935	935	935	935	935	936	936	936	937	937	938	938	938	938	931	934.5	
10	939	939	939	939	939	940	940	940	940	940	940	941	941	942	941	941	941	940	940	940	940	941	940	940	942	939	940.1	
11	940	940	940	939	940	939	939	940	939	939	940	941	942	942	942	942	942	941	942	943	943	943	944	944	944	939	941.1	
12	944	945	944	945	947	948	948	949	950	951	952	953	954	954	954	955	955	956	956	957	957	957	958	958	959	944	952.2	
13	960	960	960	960	960	960	961	961	960	961	960	961	961	961	960	960	959	961	959	961	961	961	960	960	961	959	960.3	
14	961	961	961	961	961	961	961	960	960	960	959	958	958	958	958	958	956	957	957	956	957	957	956	957	961	956	958.7	
15	956	956	957	956	956	956	956	956	955	956	956	956	956	956	955	955	955	955	954	954	954	953	953	953	957	953	955.1	
16	953	953	952	952	952	952	952	951	951	951	951	951	951	951	950	950	949	949	949	949	948	949	949	949	953	948	950.6	
17	949	949	949	949	948	949	949	949	949	949	949	948	948	947	946	945	944	944	943	942	942	942	941	941	954	941	947.1	
18	954	954	955	955	955	955	955	955	956	956	957	957	957	957	957	956	956	956	956	956	955	955	955	954	957	954	955.6	
19	954	954	953	953	952	951	950	950	949	949	948	948	947	946	945	944	944	943	942	942	942	941	941	941	954	941	947.1	
20	940	940	939	939	938	937	936	935	933	933	931	931	929	927	926	924	921	920	919	917	917	917	916	916	940	916	928.3	
21	916	916	916	916	916	917	917	917	918	918	919	920	921	923	924	925	926	926	927	928	929	930	931	931	931	916	921.9	
22	932	932	933	934	934	934	935	935	935	934	935	934	935	934	934	933	933	933	933	932	932	932	931	931	935	931	933.3	
23	931	930	930	930	929	929	930	930	931	931	931	931	931	931	931	932	931	932	933	934	935	936	936	937	937	929	931.8	
24	938	938	939	940	940	940	941	942	942	942	943	943	944	944	944	944	945	945	945	945	945	945	946	945	946	938	942.8	
25	946	946	946	946	946	946	946	946	946	946	947	947	947	947	947	947	947	947	946	946	945	944	944	943	947	943	946.0	
26	943	942	941	940	939	939	938	939	940	940	940	941	943	944	945	945	945	946	946	946	947	948	949	950	950	938	943.2	
27	951	952	953	954	955	955	956	957	958	958	959	960	960	960	961	961	962	962	962	962	963	963	963	964	964	951	958.8	
28	964	963	964	963	963	963	963	963	962	962	962	962	962	962	962	962	962	962	962	962	962	962	963	963	964	962	962.4	
29	963	964	964	964	964	965	964	965	965	966	966	966	967	967	967	967	967	967	968	967	968	968	968	969	969	963	966.1	
30	969	969	970	970	970	969	970	971	971	971	971	971	971	971	971	971	971	972	971	972	972	972	972	972	972	969	970.8	
31	972	972	972	972	972	972	972	973	972	973	973	973	973	973	973	973	973	973	972	973	972	972	973	972	973	972	972.6	
Max.	972	972	972	972	972	972	972	973	972	973	973	973	973	973	973	973	973	973	972	973	972	973	973	972	973	973		
Min.	916	916	916	916	916	917	917	917	918	918	919	920	921	923	924	924	921	920	919	917	917	917	916	916	916	916		
Avg.	949	949	949	948	948	948	948	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	948.7		
Total Hours in Month	744																									Data Recovery		100.0%

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	972	972	972	972	971	971	971	971	970	970	970	969	969	969	969	968	968	968	967	967	967	967	967	967	972	967	969.3			
2	967	967	966	966	966	966	966	965	965	965	965	965	964	965	965	965	964	964	964	964	964	964	964	964	967	964	964.9			
3	963	963	964	964	963	963	963	963	963	963	963	962	963	963	962	962	961	961	960	960	960	959	959	959	964	959	961.9			
4	958	957	957	956	956	955	954	954	953	953	952	951	951	950	950	949	948	947	947	946	946	945	945	945	958	945	951.1			
5	944	943	943	942	941	940	939	938	937	937	935	934	932	932	931	930	931	930	931	931	933	934	935	935	944	930	935.8			
6	935	935	934	935	936	936	935	935	935	935	933	932	930	928	927	925	923	921	919	918	917	915	915	915	936	915	927.8			
7	915	915	917	918	920	921	922	924	926	927	929	929	930	930	931	929	930	930	930	930	930	929	929	928	931	915	925.8			
8	927	926	926	924	924	924	923	923	922	922	922	921	921	921	920	920	921	921	921	921	922	922	923	924	927	920	922.6			
9	924	925	926	926	926	927	927	928	928	929	930	931	931	932	933	933	934	934	935	936	936	937	938	938	938	924	930.9			
10	939	939	940	941	942	942	942	943	943	944	944	945	946	947	947	948	948	949	949	949	950	950	951	951	951	939	945.5			
11	952	952	952	952	952	952	952	952	953	953	953	952	952	952	951	951	950	950	950	949	949	949	949	948	953	948	951.2			
12	948	948	947	947	946	946	946	945	945	944	944	944	943	943	943	942	941	941	941	940	940	940	940	939	948	939	943.4			
13	939	939	938	938	938	938	938	938	938	938	938	939	939	939	939	939	938	938	938	939	939	940	940	940	940	938	938.7			
14	940	940	940	940	940	939	939	939	939	939	939	939	939	938	938	938	938	938	938	937	937	937	937	937	940	937	938.5			
15	936	936	937	936	936	937	937	937	937	937	937	937	937	938	938	938	938	938	938	938	939	939	940	940	940	936	937.5			
16	940	941	941	941	942	943	943	944	945	945	946	947	948	948	949	949	950	951	951	952	953	953	953	952	953	940	947.0			
17	952	952	951	951	950	949	948	947	946	946	946	945	945	945	944	943	942	940	940	940	939	939	939	939	952	939	944.8			
18	938	939	940	941	942	941	942	943	943	943	944	945	947	947	948	948	949	951	952	952	952	953	953	953	953	938	946.1			
19	953	952	952	952	951	950	950	950	949	949	948	948	948	948	948	948	947	947	946	946	946	945	945	945	953	945	948.5			
20	944	944	944	943	943	944	944	944	944	944	943	943	944	943	943	944	944	945	945	945	946	946	947	948	948	943	944.3			
21	947	948	948	947	948	948	948	947	947	947	946	945	946	945	945	945	944	945	944	943	942	942	942	943	948	942	945.5			
22	942	942	941	941	941	940	940	939	939	939	938	938	937	938	938	937	937	937	937	937	937	937	937	937	942	937	938.7			
23	937	935	935	934	933	933	934	933	933	933	933	933	933	934	934	933	934	934	934	934	934	934	935	935	937	933	933.9			
24	935	936	936	937	937	937	937	937	938	938	938	938	938	939	939	938	938	938	938	938	938	939	939	939	939	935	937.8			
25	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	941	940	940	940	941	941	941	941	941	941	938	939.7			
26	941	941	941	940	940	940	939	939	939	939	938	938	937	937	937	936	936	935	935	935	936	936	937	937	941	935	937.9			
27	937	938	938	939	939	940	940	941	941	942	943	943	944	944	944	945	945	945	946	946	947	947	947	947	947	937	942.8			
28	948	948	948	948	948	948	948	948	947	947	948	947	947	946	946	945	944	944	944	943	944	944	944	944	948	943	946.1			
29	943	943	943	943	942	942	942	942	942	942	942	942	942	942	943	943	943	943	943	943	944	944	945	945	945	942	942.9			
30	945	946	946	947	947	947	947	947	947	948	947	948	948	947	947	947	947	947	946	947	947	947	947	947	948	945	946.9			
Max.	972	972	972	972	971	971	971	971	970	970	970	969	969	969	969	968	968	968	967	967	967	967	967	967	972					
Min.	915	915	917	918	920	921	922	923	922	922	922	921	921	921	920	920	921	921	921	919	918	917	915	915	915	915				
Avg.	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	942	942	942	942	942	943	943	943	942.9				
Total Hours in Month	720										Hours Data Available										Data Recovery									
	720										720										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	947	948	948	948	948	948	948	948	949	949	949	949	949	949	949	948	948	948	948	948	948	948	949	949	949	947	948.4	
2	949	948	948	948	948	948	947	947	948	948	948	948	948	948	948	948	948	948	949	949	950	950	951	950	951	947	948.5	
3	951	951	951	951	951	951	951	951	952	952	952	952	952	951	951	951	951	951	951	951	951	951	952	952	952	951	951.3	
4	952	952	952	952	952	952	952	952	952	952	953	953	953	952	952	952	952	952	952	952	953	953	952	953	953	952	952.3	
5	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	952	952	953	952	952.7	
6	952	953	952	952	952	952	952	953	953	953	953	953	953	952	952	953	952	953	953	953	953	953	954	954	954	952	952.6	
7	954	955	955	955	956	956	956	957	957	957	957	958	958	958	958	958	958	958	958	958	958	958	959	959	959	954	957.0	
8	959	959	960	959	960	960	960	960	960	960	960	960	960	960	959	959	958	958	958	957	957	957	957	957	960	957	958.9	
9	957	957	957	957	956	956	956	956	957	957	957	957	957	957	958	958	958	958	958	959	959	959	960	960	960	956	957.6	
10	960	960	960	960	960	960	960	960	960	960	960	960	960	960	959	959	958	958	958	958	959	959	960	960	960	960	956	957.6
11	957	957	957	956	956	956	956	956	956	955	955	956	956	956	956	956	956	956	956	956	956	956	956	957	957	960	957	959.1
12	957	957	957	957	957	957	957	957	957	957	957	958	958	957	957	957	957	956	956	956	956	956	956	957	957	957	955	956.0
13	957	956	956	956	955	955	955	955	955	955	955	955	955	954	954	954	954	953	953	953	953	953	953	953	957	953	954.5	
14	953	953	952	952	951	951	951	950	950	950	950	949	949	950	951	951	951	951	951	952	952	952	953	953	954	954	949	951.3
15	954	955	954	954	955	955	955	956	956	956	956	955	955	955	955	955	954	954	954	953	953	953	952	952	951	956	951	954.4
16	951	951	950	949	949	948	948	948	947	947	947	947	947	947	947	947	948	948	949	949	950	950	951	951	952	952	947	948.7
17	952	953	952	953	953	954	954	954	954	955	955	956	956	956	957	957	957	957	957	957	958	959	960	961	961	961	952	955.8
18	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	960	960	960	960	960	959	959	959	961	959	960.6	
19	959	959	958	958	958	958	958	958	958	958	958	958	958	958	957	957	957	957	957	958	958	958	959	959	959	959	957	958.0
20	959	960	960	960	960	960	960	960	961	961	961	961	961	961	961	961	961	961	961	961	961	962	962	963	963	959	960.8	
21	963	963	963	963	963	962	962	962	963	962	962	962	962	962	961	961	960	960	960	959	958	958	958	958	958	963	958	961.0
22	957	957	957	956	956	955	954	954	953	952	952	952	951	950	950	950	949	949	949	949	949	948	948	948	948	957	948	951.9
23	948	948	948	948	947	947	947	947	948	948	948	948	948	948	949	949	949	949	949	950	950	951	951	951	952	947	948.7	
24	952	952	952	951	952	952	952	951	951	951	951	951	951	951	950	949	949	949	948	948	949	949	949	949	952	948	950.4	
25	949	948	948	948	948	947	947	947	947	947	947	947	947	947	947	948	947	947	947	947	947	947	947	946	949	946	947.3	
26	946	947	947	947	947	947	947	948	948	948	948	949	948	949	949	949	949	949	949	950	949	950	950	950	950	946	948.4	
27	951	951	951	951	951	951	951	952	952	952	952	953	953	953	954	954	953	953	953	954	954	954	955	955	956	951	952.7	
28	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	955	956	956	956	956	956	956	956	956	956	956	955	955.9
29	955	955	955	954	954	953	953	952	952	952	951	950	950	949	949	948	948	947	947	947	947	947	947	946	946	955	946	950.3
30	946	946	946	946	945	945	945	945	945	945	944	945	944	944	944	943	943	943	944	944	944	944	944	945	946	943	944.5	
31	945	945	945	945	945	945	946	945	946	947	946	947	947	947	947	947	947	947	947	948	948	948	948	949	949	949	945	946.5
Max.	963	963	963	963	962	962	962	962	963	962	962	962	962	961	961	961	961	961	961	961	961	962	962	963	963			
Min.	945	945	945	945	945	945	945	945	945	944	945	944	944	944	944	943	943	943	944	944	944	944	944	945	943			
Avg.	954	954	954	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	954	954	953.3			
Total Hours in Month	744																										99.6%	
	741																										Data Recovery	

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

June 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	949	950	950	950	950	950	950	950	951	951	952	952	952	953	953	952	953	953	954	954	955	955	955	956	956	949	952.1			
2	956	957	957	956	956	956	956	956	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	958	958	956	956.8			
3	958	958	958	958	957	957	957	957	957	957	957	957	957	957	956	956	955	955	955	954	954	954	953	952	958	952	956.1			
4	952	951	951	950	949	948	947	946	946	945	944	944	943	943	943	943	943	943	943	943	943	943	944	944	952	943	945.5			
5	944	944	945	945	945	945	945	945	945	945	945	945	945	946	945	946	947	947	948	948	948	948	948	948	948	944	945.8			
6	949	948	948	948	948	947	947	947	947	947	946	946	945	945	945	944	944	944	943	943	943	943	943	943	949	943	945.6			
7	943	942	942	942	942	942	942	941	941	941	941	941	941	942	942	942	942	943	943	944	944	944	944	944	944	941	942.3			
8	945	945	945	945	945	945	945	945	945	946	946	946	945	945	946	946	946	946	946	947	947	947	948	949	949	945	945.9			
9	949	949	949	949	949	949	949	949	949	950	950	950	949	949	949	949	949	949	949	948	948	948	948	948	950	948	949.0			
10	948	948	947	947	947	947	947	947	947	947	946	947	947	946	946	946	946	946	946	946	946	946	947	947	948	946	946.7			
11	948	948	948	948	948	949	949	949	949	949	949	949	950	950	950	950	950	951	951	951	951	952	953	954	954	948	949.9			
12	954	955	955	955	956	956	956	957	957	957	958	958	959	959	959	960	960	960	960	960	960	961	961	962	962	954	958.1			
13	962	962	962	962	962	962	963	963	963	963	963	963	964	964	964	964	964	964	964	964	964	964	965	966	966	962	963.4			
14	966	966	966	966	966	966	967	967	967	967	967	967	968	968	968	968	968	968	968	968	968	968	968	968	968	966	967.1			
15	968	968	968	968	968	968	968	968	968	968	968	968	968	967	967	967	967	967	966	966	966	966	967	967	968	966	967.4			
16	967	967	967	967	967	967	967	967	967	967	967	966	966	966	966	965	965	965	964	964	964	963	963	963	967	963	965.7			
17	962	962	962	962	962	961	961	961	961	961	961	961	961	961	961	961	960	960	960	960	959	959	959	959	962	959	960.7			
18	959	959	959	958	958	958	958	957	957	957	957	957	957	957	957	957	957	957	957	957	958	958	958	959	959	957	957.7			
19	959	959	959	959	959	959	959	959	959	959	959	959	959	959	958	958	957	957	957	957	957	957	957	958	959	957	958.6			
20	959	959	959	959	958	958	958	958	958	958	958	958	958	958	957	957	957	957	956	956	957	957	957	958	959	956	957.9			
21	957	957	958	957	957	957	957	957	957	957	957	957	957	957	956	956	955	955	955	954	954	954	953	952	958	957	957.3			
22	958	958	958	958	958	958	958	957	957	957	957	957	957	956	956	956	955	955	954	954	954	953	953	952	958	952	956.1			
23	952	952	951	950	950	949	948	948	947	947	947	947	947	947	947	947	946	946	947	947	947	947	947	947	952	946	948.0			
24	948	948	948	948	948	948	949	949	949	949	950	950	950	950	950	951	951	951	951	951	951	951	952	953	953	948	949.9			
25	954	954	954	955	955	955	955	956	957	957	958	958	959	959	959	959	960	960	960	961	962	962	963	963	963	954	958.2			
26	964	964	965	964	965	965	965	966	966	966	967	966	966	967	967	967	967	967	967	966	966	966	966	966	967	964	965.9			
27	966	966	966	966	966	966	966	965	965	965	964	964	963	963	963	962	962	961	961	961	960	960	960	960	966	960	963.3			
28	960	960	959	959	959	959	958	958	958	957	957	957	957	956	956	955	955	955	954	954	954	954	954	954	960	954	956.7			
29	954	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	954	954	954	954	954	954	954	954	953.4			
30	955	955	955	955	955	955	955	955	955	956	956	956	956	957	957	957	957	957	957	957	957	957	957	958	958	955	956.0			
Max.	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	968	967	968	968					
Min.	943	942	942	942	942	942	942	941	941	941	941	941	941	941	942	942	942	943	943	943	943	943	943	943	941	941				
Avg.	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955.2	955.2				
Total Hours in Month	720										Hours Data Available										Data Recovery									
	720										720										100.0%									

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

July 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	959	959	959	958	958.1	
2	959	959	959	959	959	960	959	960	959	959	959	959	959	959	959	958	958	958	958	958	957	957	958	958	960	957	958.6	
3	958	958	958	958	958	958	958	958	958	959	959	959	959	959	959	959	958	958	958	958	958	958	958	958	959	958	958.3	
4	958	958	958	957	957	957	957	957	957	957	957	957	957	958	957	957	957	957	957	957	957	957	957	957	958	957	957.3	
5	957	957	958	958	958	958	958	958	958	958	957	958	958	958	957	958	958	958	958	958	959	959	960	960	960	957	957.9	
6	960	961	960	960	960	960	961	961	961	962	962	962	962	962	962	962	962	962	962	962	962	962	962	963	963	960	961.5	
7	963	963	963	963	963	963	963	963	963	963	963	963	963	963	962	962	962	961	961	961	961	961	960	960	963	960	962.3	
8	960	959	959	959	959	958	958	958	958	958	958	958	958	958	958	958	958	958	958	957	958	957	958	958	960	957	958.2	
9	958	958	958	958	958	958	957	957	957	957	957	957	956	956	955	955	954	954	954	953	953	953	953	953	958	953	955.6	
10	952	952	952	952	951	951	951	951	951	950	950	950	950	950	950	951	951	951	951	951	952	952	952	952	952	952	950	951.2
11	953	953	953	953	953	953	953	953	954	954	954	954	954	955	954	955	954	954	954	954	954	954	954	955	955	953	954.0	
12	955	955	955	955	955	955	955	955	955	955	955	955	955	955	954	954	955	955	955	956	956	956	956	957	957	954	955.1	
13	957	957	957	957	957	957	957	957	957	957	956	956	956	956	955	955	954	954	954	953	953	953	953	953	959	953	955.7	
14	958	958	958	958	958	958	958	958	958	958	958	958	958	959	959	959	958	958	958	958	958	958	958	958	960	958	958.7	
15	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	959	959.8	
16	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	960	958	959.3	
17	958	959	958	958	958	958	958	957	957	957	956	956	956	955	955	954	954	954	953	953	953	954	953	953	959	953	955.7	
18	953	953	953	953	953	953	952	952	952	952	951	951	951	951	951	951	951	950	950	950	951	951	951	951	953	950	951.5	
19	951	951	951	951	950	950	950	950	950	950	950	950	950	950	950	949	949	949	949	949	949	949	949	949	951	949	949.8	
20	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949	950	950	950	949	949.0	
21	950	951	951	951	951	951	951	951	951	951	951	951	951	951	951	950	950	950	950	950	950	950	950	951	951	950	950.5	
22	949	949	949	948	948	948	948	948	948	947	947	947	947	948	948	948	947	947	947	947	947	947	948	948	949	947	947.8	
23	948	948	948	948	948	948	948	948	949	949	949	950	950	950	950	950	950	949	950	950	950	950	950	950	950	948	949.1	
24	950	950	950	949	949	949	949	949	950	950	950	950	950	950	950	950	950	950	950	950	950	950	951	951	951	949	949.9	
25	951	952	952	952	952	952	952	952	953	953	953	954	954	955	955	955	955	955	955	955	955	955	956	956	956	951	953.7	
26	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957	957.0	
27	957	957	957	957	957	957	957	957	958	958	958	958	958	958	957	957	957	956	956	956	957	957	957	957	958	956	957.1	
28	957	957	957	957	957	957	957	957	957	957	957	957	957	957	956	956	956	956	955	955	955	955	955	955	957	955	956.4	
29	956	956	956	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	956	956	956	955	955.3	
30	956	956	957	957	957	957	957	958	958	958	958	958	958	959	959	959	959	959	959	959	959	959	959	960	960	956	958.2	
31	960	960	960	960	960	960	960	960	960	960	960	961	961	961	961	961	960	960	961	961	960	960	960	961	961	960	960.3	
Max.	963	963	963	963	963	963	963	963	963	963	963	963	963	963	962	962	962	962	962	962	962	962	962	963	963			
Min.	948	948	948	948	948	948	948	948	948	947	947	947	947	947	948	948	947	947	947	947	947	947	948	948	947	947		
Avg.	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	955	955	955	955	955	955	956	956	956	955.6		
Total Hours in Month																									744		Data Recovery	
																									100.0%			

August 2007

August 2007

HCG, Inc.

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	952	952	953	953	953	953	953	954	954	954	955	955	955	955	955	955	955	955	955	955	955	955	956	956	956	952	954.4	
2	956	956	956	957	957	957	957	957	957	957	957	957	957	956	956	956	955	955	955	954	954	953	953	953	957	953	955.6	
3	952	952	951	950	949	949	948	947								942	941	941	941	940	939	938	939	938	952	938	944.6	
4	939	939	939	939	940	940	940	940	940	940	940	940	940	941	941	941	941	941	941	941	942	942	943	944	944	939	940.7	
5	944	945	945	946	946	946	947	947	948	948	949	949	949	949	949	949	949	949	949	949	949	950	950	951	951	944	948.1	
6	951	952	952	952	953	954	954	954	955	955	955	955	956	956	956	956	955	955	955	956	956	956	956	957	957	951	954.6	
7	957	957	957	957	957	957	957	957	957	955	955	954	954	953	952	952	951	950	949	947	947	946	945	945	957	945	952.8	
8	945	946	945	946	947	947	947	947	947	947	947	947	947	947	947	948	948	948	949	949	950	951	951	951	951	945	947.8	
9	952	952	952	953	953	953	953	953	953	954	954	954	954	954	954	954	954	954	955	955	955	955	956	956	956	952	953.9	
10	957	957	957	958	958	958	959	959	959	959	959	960	960	960	959	958	958	958	958	958	958	958	958	958	960	957	958.3	
11	958	958	958	958	958	958	958	957	957	957	957	956	956	956	953	954	953	952	949	950	950	949	949	949	958	948	954.3	
12	949	949	949	949	950	951	951	951	951	951	952	952	952	952	952	952	952	953	953	953	954	955	955	956	957	949	951.8	
13	957	957	957	957	958	957	957	957	958	958	958	958	958	958	958	957	957	957	957	957	957	957	957	957	958	957	957.3	
14	956	956	956	956	955	955	955	954	954	954	953	953	953	952	951	951	951	951	951	950	950	949	949	950	956	949	952.7	
15	950	949	949	949	949	949	949	949	950	950	950	950	950	951	951	951	951	951	951	952	952	952	953	953	953	949	950.5	
16	953	954	954	954	955	955	955	955	955	956	956	957	957	957	957	957	957	957	957	957	957	957	958	958	958	953	956.0	
17	959	959	959	959	960	959	959	960	960	960	961	961	961	961	961	960	961	960	960	960	960	959	959	959	961	959	959.9	
18	959	958	958	958	956	956	954	954	953	952	952	950	949	948	947	947	946	946	946	945	945	946	946	947	959	945	950.8	
19	947	948	948	948	948	948	948	949	948	949	949	949	949	949	949	949	949	950	949	949	949	950	950	950	950	947	948.7	
20	950	950	949	949	948	948	947	947	946	946	946	946	946	946	945	945	945	945	945	946	946	947	947	947	950	945	946.8	
21	948	949	949	949	950	950	951	951	952	952	953	953	953	954	954	955	955	954	955	955	955	955	956	956	956	948	952.6	
22	956	956	955	955	954	954	953	953	952	952	951	950	949	949	948	946	946	945	944	944	943	943	943	943	956	943	949.3	
23	942	942	942	942	942	942	942	942	942	942	943	943	943	943	943	942	942	942	941	941	941	941	942	942	943	941	942.0	
24	941	941	942	941	942	943	943	943	943	944	944	944	944	944	944	944	943	942	942	942	941	941	941	942	944	941	942.7	
25	943	943	944	944	944	944	945	945	945	946	946	947	947	947	947	947	946	946	946	946	946	946	946	947	947	943	945.5	
26	947	947	947	947	948	948	948	949	949	949	950	950	950	950	950	950	950	950	951	951	951	952	952	953	953	947	949.6	
27	953	953	953	953	953	954	954	953	953	953	952	952	952	950	949	947	947	946	944	942	942	940	938	937	935	954	935	948.6
28	934	933	932	932	931	930	930	930	929	929	930	930	930	930	930	930	930	931	931	931	932	932	933	933	934	929	931.1	
29	934	935	936	936	937	938	938	938	939	939	940	940	940	940	940	940	940	940	940	939	938	938	938	939	940	934	938.4	
30	938	938	938	938	937	937	936	936	936	935	935	935	935	934	934	933	932	932	932	931	931	931	931	932	938	931	934.5	
Max.	959	959	959	959	960	959	959	960	960	960	961	961	961	961	961	960	961	960	960	960	960	959	959	959	961			
Min.	934	933	932	932	931	930	930	930	929	929	930	930	930	930	930	930	930	930	931	931	931	931	931	932	929			
Avg.	949	949	949	949	950	950	950	950	950	950	950	950	950	950	950	949	949	948	948	948	948	948	948	948	949	949.2		
Total Hours in Month	720																									98.9%		
Hours Data Available	712																									Data Recovery		

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.		
1	932	932	932	933	932	933	933	933	933	934	934	935	936	936	936	937	937	937	938	938	939	939	940	940	940	940	932	935.3	
2	940	941	941	941	941	942	942	943	944	945	945	946	946	948	948	948	949	950	950	951	952	952	953	953	953	953	940	946.3	
3	954	954	955	955	956	956	957	957	958	958	959	959	960	960	960	960	959	959	960	959	959	958	958	957	957	960	954	957.7	
4	956	955	954	953	951	950	949	947	946	945	943	942	941	940	939	938	937	937	934	935	934	933	933	932	932	956	932	942.7	
5	932	931	929	928	927	926	926	925	925	925	925	927	929	929	929	930	931	932	933	934	935	935	936	936	936	936	925	929.7	
6	936	937	937	938	938	939	939	940	941	942	943	943	944	945	945	945	945	945	945	945	945	945	944	944	944	945	936	942.0	
7	944	944	943	944	943	943	943	943	943	944	944	944	945	945	945	946	945	946	947	948	948	949	950	951	951	943	945.4		
8	952	953	953	953	954	955	956	956	956	956	956	957	957	957	957	958	957	957	957	957	958	957	956	956	956	958	952	955.9	
9	955	955	954	954	953	953	952	952	952	952	951	951	950	950	949	949	948	948	948	947	947	947	947	946	946	955	946	950.4	
10	946	945	945	945	945	944	944	944	944	943	943	943	942	942	942	942	942	941	942	942	942	942	942	942	942	946	941	943.0	
11	942	941	941	941	941	941	941	941	941	941	941	941	941	941	941	940	940	940	939	939	939	939	938	938	942	938	940.4		
12	937	937	937	937	936	936	936	935	935	934	934	933	933	932	932	931	931	930	930	929	929	929	929	929	929	937	929	932.9	
13	929	928	928	928	928	928	927	927	927	928	928	928	929	929	930	930	930	930	931	931	932	932	933	933	933	933	927	929.4	
14	934	934	934	935	935	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	936	933	934.8	
15	933	932	932	933	933	933	933	933	933	934	934	935	935	935	935	936	936	936	936	936	936	936	937	937	937	937	932	934.5	
16	937	937	937	937	937	937	937	937	937	937	937	937	937	937	937	936	936	936	936	936	935	935	936	935	935	937	935	936.4	
17	936	935	935	935	935	934	934	934	934	934	934	934	935	935	934	934	934	934	934	934	935	935	935	935	935	936	934	934.5	
18	935	935	935	935	934	935	935	935	935	935	935	936	936	936	936	936	936	936	936	936	936	936	937	937	937	937	934	935.5	
19	937	938	938	938	938	938	938	938	938	938	939	939	939	939	939	939	939	939	939	939	939	940	940	940	940	940	937	938.7	
20	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	941	938	939.9	
21	939	939	939	938	938	938	938	939	940	940	940	941	941	941	940	940	939	940	940	940	940	940	940	940	940	940	938	939.3	
22	940	940	940	940	940	941	941	941	941	942	943	943	944	944	945	945	945	945	946	946	947	947	947	947	947	947	940	943.3	
23	948	948	948	948	948	949	948	948	949	949	950	950	950	949	949	949	949	949	950	950	951	951	951	951	951	951	948	949.2	
24	951	951	950	950	950	950	950	950	950	950	950	951	951	952	952	952	952	952	952	952	952	952	951	951	952	950	951.0		
25	950	949	948	947	946	943	943	941	940	938	936	936	936	936	936	935	935	937	938	940	942	942	942	943	943	950	935	940.6	
26	943	944	944	944	944	944	944	944	945	945	945	946	946	946	945	945	945	944	944	944	943	943	943	943	946	943	944.3		
27	943	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	942	943	943	943	943	944	944	944	944	942	942.5	
28	944	944	945	945	945	945	945	945	945	946	946	946	946	946	946	946	945	944	944	943	942	942	940	939	946	939	944.4		
29	938	937	936	935	934	933	931	930	928	928	927	925	925	924	924	922	922	921	921	919	919	918	917	917	917	938	917	926.3	
30	916	915	914	913	912	911	911	911	911	912	913	913	914	915	915	916	917	918	920	921	922	922	923	925	925	925	911	915.9	
31	926	926	928	928	929	930	931	932	932	933	934	935	935	936	936	936	935	935	934	933	932	931	930	929	929	936	926	931.8	
Max.	956	955	955	955	956	956	957	957	958	958	959	959	960	960	960	960	959	959	960	959	959	958	958	957	960	960			
Min.	916	915	914	913	912	911	911	911	911	912	913	913	914	915	915	916	917	918	920	919	919	918	917	917	917	911			
Avg.	940	940	940	940	940	939	939	939	939	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	940	939.8			
Total Hours in Month	744																										Data Recovery		100.0%

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	928	927	927	926	926	926	926	926	926	927	928	929	929	930	930	930	931	931	932	933	934	935	936	937	937	926	929.5	
2	937	938	939	940	940	941	941	941	942	943	943	944	944	945	945	945	946	946	947	947	948	948	949	949	949	937	943.7	
3	950	951	951	952	952	953	953	953	954	954	955	955	955	955	955	954	954	954	954	954	953	953	953	953	955	950	953.3	
4	952	951	951	950	949	949	948	948	948	948	949	949	949	949	949	949	949	949	949	949	950	950	950	950	952	948	949.2	
5	950	950	950	950	949	949	950	949	949	950	950	950	950	950	950	950	949	948	948	948	948	948	947	947	950	947	949.1	
6	946	946	946	945	943	943	942	941	940	939	938	938	936	934	935	935	934	934	935	934	934	935	938	939	946	934	938.9	
7	939	939	939	939	938	937	937	937	937	937	937	938	938	938	939	939	939	940	941	941	942	942	943	944	944	937	939.3	
8	943	943	941	941	940	936	935	932	930	928	927	925	927	927	926	926	925	925	925	924	924	924	923	923	943	923	929.9	
9	922	922	922	921	921	921	920	920	919	919	919	919	919	919	918	918	918	918	918	918	919	919	919	919	922	918	919.4	
10	919	919	919	919	919	919	919	919	919	919	919	920	920	920	920	921	921	922	922	923	923	924	924	924	924	919	920.4	
11	925	926	926	926	927	927	927	927	928	928	928	929	929	929	929	929	929	930	930	930	931	931	931	931	931	925	928.4	
12	932	932	932	932	932	932	932	932	932	932	932	933	933	933	933	933	933	933	933	933	934	934	934	934	932	930	931.4	
13	930	930	930	930	929	929	928	928	928	927	927	927	928	928	928	929	929	929	929	929	929	929	929	929	930	927	928.6	
14	930	930	931	931	932	932	932	932	932	932	932	933	933	933	933	933	933	933	933	933	934	934	934	934	934	930	932.5	
15	934	934	935	934	934	934	934	934	934	934	934	934	934	934	934	934	933	933	933	933	933	933	933	932	935	932	933.5	
16	931	931	931	931	930	930	930	930	930	931	930	930	931	931	931	932	932	932	932	932	934	935	935	936	937	937	930	931.9
17	938	937	938	939	939	939	941	941	941	941	941	942	942	943	943	942	943	944	945	944	944	944	945	945	945	937	941.6	
18	945	945	946	945	945	945	944	944	944	944	945	945	945	945	945	945	944	945	945	945	945	946	946	947	947	944	945.0	
19	947	947	947	948	948	948	948	948	949	949	949	949	949	948	948	947	947	946	945	944	943	942	941	939	949	939	946.6	
20	938	937	936	935	933	932	932	931	931	930	931	930	930	929	931	930	930	931	932	931	930	930	929	930	938	929	931.6	
21	929	929	928	930	930	931	933	935	936	937	938	939	940	941	942	943	944	945	945	948	949	950	950	951	951	928	939.3	
22	950	951	950	949	948	947	946	943	943	940	939	938	937	937	936	935	934	933	932	933	934	935	937	938	951	932	940.2	
23	938	939	939	940	939	940	939	940	940	940	939	938	937	937	939	940	940	940	940	941	941	941	942	942	942	938	939.9	
24	942	943	942	942	941	941	941	940	940	939	938	939	937	935	935	935	934	934	932	932	933	933	932	933	943	932	937.2	
25	933	933	934	933	932	930	929	927	924	924	921	923	922	921	919	917	917	916	918	918	919	919	919	920	934	916	923.7	
26	919	920	921	921	923	924	926	927	929	931	933	935	937	939	941	942	943	945	946	947	948	948	948	949	949	919	935.1	
27	950	950	949	949	948	947	947	946	945	945	944	944	943	941	941	942	943	944	943	943	944	945	945	947	950	941	945.1	
28	948	949	949	950	952	953	954	956	957	958	959	960	961	962	963	963	964	964	965	965	966	967	968	968	968	948	959.2	
29	969	970	970	970	970	969	968	967	968	969	969	967	967	968	967	966	966	965	965	963	963	963	964	964	970	963	966.9	
30	962	964	963	963	962	963	961	961	960	960	962	960	961	960	960	960	958	956	955	955	957	957	956	959	964	955	959.9	
Max.	969	970	970	970	970	969	968	967	968	969	969	967	967	968	967	966	966	965	965	965	966	967	968	968	970			
Min.	919	919	919	919	919	919	919	919	919	919	919	919	919	919	918	917	917	916	918	918	919	919	919	919	916			
Avg.	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	939	940	940	940	939.0			

Total Hours in Month

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Barometric Pressure (mbar)

December 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	958	959	959	961	961	962	961	962	961	961	961	961	961	961	961	960	960	960	958	958	957	956	955	955	962	955	959.6	
2	954	952	951	950	949	948	947	945	945	944	943	942	941	940	940	939	939	938	938	938	937	936	936	937	954	936	942.8	
3	936	936	935	935	935	934	934	933	933	933	933	933	933	933	933	933	933	932	932	932	931	931	931	931	936	931	933.2	
4	931	931	931	931	931	931	931	931	932	933	934	936	936	936	937	938	939	940	941	942	943	944	945	947	948	948	931	936.9
5	949	951	952	952	953	954	954	954	954	955	955	955	954	954	953	953	953	952	952	951	950	950	950	948	955	948	952.4	
6	947	948	947	946	945	945	945	944	944	944	944	945	945	946	947	948	950	951	952	953	953	954	955	956	956	944	948.0	
7	956	956	957	957	957	956	956	956	955	955	954	953	952	950	948	945	943	942	942	941	938	938	938	938	957	938	949.3	
8	939	940	942	942	943	944	944	944	944	944	944	944	944	945	945	946	946	947	948	949	950	951	952	953	953	939	945.5	
9	954	955	955	955	954	954	953	952	953	952	951	951	952	951	951	951	951	950	950	948	946	947	947	947	955	946	951.2	
10	945	945	942	940	939	937	935	934	932	931	930	929	928	928	927	928	928	929	929	930	931	932	933	934	945	927	933.2	
11	935	936	937	939	940	941	942	943	943	944															944	935	939.9	
12																												
13																												
14	954	954	954	953	953	953	953	953	953										953	953	954	954	954	954	954	953	953.7	
15	947	946	946	946	946	945	946	946	946	946	946	946	946	946	945	945	945	945	945	945	946	945	945	945	954	953	953.4	
16	946	945	945	945	943	943	943	943	942	941	941	940	940	940	939	938	937	936	937	937	935	934	933	935	947	945	945.7	
17	934	933	933	933	934	934	934	934	934	934	936	934	935	935	936	936	936	936	936	936	936	936	936	936	946	933	939.9	
18	936	936	936	936	935	935	935	935	935	935	935	935	935	935	935	935	935	935	936	936	936	936	936	936	936	933	935.0	
19	938	938	939	940	940	941	941	941	941	942	943	943	944	944	944	944	944	944	944	944	943	944	943	937	938	938	935	935.6
20	943	942	941	941	940	939	938	937	935	935	934	933	933	933	933	932	932	931	931	930	930	930	930	930	944	938	942.2	
21	930	929	929	929	929	929	929	929	929	929	929	929	929	928	928	928	927	927	926	925	926	926	925	924	943	930	934.6	
22	924	924	923	923	923	922	922	922	923	922	923	923	924	924	924	924	925	926	926	926	926	927	928	928	930	924	927.7	
23	928	930	931	932	933	933	934	934	935	936	937	937	938	938	939	939	939	940	940	941	941	941	941	942	928	922	924.2	
24	941	941	941	940	940	939	938	938	938	938	938	937	936	936	935	935	935	935	936	937	937	939	939	940	942	928	936.6	
25	941	942	943	944	945	946	947	948	949	949	950	951	951	953	953	955	955	956	956	957	957	956	956	955	941	935	937.9	
26	955	955	954	952	951	950	949	947	946	945	944	943	940	939	938	936	934	933	933	933	932	932	930	930	957	941	950.7	
27	928	927	927	926	926	927	926	925	926	926	926	926	926	926	926	926	927	927	927	927	928	928	929	930	955	930	941.8	
28	930	931	933	934	935	934	936	936	937	938	938	939	938	938	939	939	939	939	939	939	939	939	939	939	930	925	926.8	
29	939	940	940	941	941	941	942	942	943	943	944	945	945	945	946	946	946	946	947	948	948	948	949	949	939	930	936.8	
30	950	950	951	951	951	951	951	951	950	950	950	950	950	949	949	948	947	947	947	947	947	947	948	949	949	939	944.4	
31	949	950	951	951	951	951	952	952	953	953	953	953	953	953	952	952	951	950	949	948	947	947	948	949	951	947	949.2	
																									953	945	950.5	
Max.	958	959	959	961	961	962	961	962	961	961	961	961	961	961	961	960	960	960	958	958	957	956	956	956	962			
Min.	924	924	923	923	923	922	922	922	923	922	923	923	924	924	924	924	924	925	926	925	926	926	925	924		922		
Avg.	942	942	942	942	942	942	942	942	942	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941.4	
Total Hours in Month	744																								941.4			
Hours Data Available	673																								Data Recovery			
	90.5%																											

Pebble 1 Meteorological Station - Solar (Watts/m²)

January 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	0	0	7	46	90	100	85	40	5	0	0	0	0	0	0	100	0	16
2	0	0	0	0	0	0	0	0	0	0	0	4	29	64	90	81	46	6	0	0	0	0	0	0	90	0	13
3	0	0	0	0	0	0	0	0	0	0	0	6	23	40	49	44	27	6	0	0	0	0	0	0	49	0	8
4	0	0	0	0	0	0	0	0	0	0	0	3	15	37	47	48	28	4	0	0	0	0	0	0	48	0	8
5	0	0	0	0	0	0	0	0	0	0	0	6	20	33	38	35	23	5	0	0	0	0	0	0	38	0	7
6	0	0	0	0	0	0	0	0	0	0	0	6	23	40	52	55	38	5	0	0	0	0	0	0	55	0	9
7	0	0	0	0	0	0	0	0	0	0	0	6	23	37	37	47	33	6	0	0	0	0	0	0	47	0	8
8	0	0	0	0	0	0	0	0	0	0	0	6	21	31	36	34	24	6	0	0	0	0	0	0	36	0	7
9	0	0	0	0	0	0	0	0	0	0	0	10	40	68	55	59	57	6	0	0	0	0	0	0	68	0	12
10	0	0	0	0	0	0	0	0	0	0	0	3	15	26	35	31	20	4	0	0	0	0	0	0	35	0	6
11	0	0	0	0	0	0	0	0	0	0	0	5	25	45	57	44	29	7	0	0	0	0	0	0	57	0	9
12	0	0	0	0	0	0	0	0	0	0	0	10	41	51	55	46	16	4	0	0	0	0	0	0	55	0	9
13	0	0	0	0	0	0	1	1	1	1	1	7	31	53	81	65	48	17	1	0	0	0	0	0	81	0	13
14	0	0	0	0	0	0	0	0	0	1	1	21	55	89	155	134	81	23	1	1	0	0	0	0	155	0	24
15	0	0	0	0	0	0	0	0	0	1	1	14	68	106	180	165	119	20	1	0	0	0	0	0	180	0	28
16	0	0	0	0	0	0	0	0	0	0	0	6	30	37	42	38	23	7	0	0	0	0	0	0	42	0	8
17	0	0	0	0	0	0	0	0	0	0	0	7	32												32	0	2
18	0	0	0	0	0	0	0	0	0	0	0	9	28	41	47	51	35	11	1	0	0	0	0	0	51	0	9
19	0	0	0	0	0	0	0	0	0	0	0	24	41	41	47	41	21	10	0	0	0	0	0	0	47	0	9
20	0	0	0	0	0	0	0	0	0	0	0	8	27	50	63	62	42	17	1	0	0	0	0	0	63	0	11
21	0	0	0	0	0	0	0	0	0	1	1	23	63	96	87	72	58	27	1	0	0	0	0	0	96	0	18
22	0	0	0	0	0	0	0	0	0	2	2	32	90	169	197	170	120	26	2	0	0	0	0	0	197	0	34
23	0	0	0	0	0	0	0	0	0	2	2	24	62	74	123	189	102	18	2	0	0	0	0	0	189	0	25
24	0	0	0	0	0	0	0	0	0	2	2	65	138	167	160	126	88	47	2	0	0	0	0	0	167	0	33
25	0	0	0	0	0	0	0	0	0	0	0	13	78	51	75	60	69	25	2	0	0	0	0	0	78	0	16
26	0	0	0	0	0	0	0	0	0	1	1	12	36	66	75	73	42	16	2	0	0	0	0	0	75	0	13
27	0	0	0	0	0	0	0	0	0	1	1	18	48	71	77	70	66	30	3	0	0	0	0	0	77	0	16
28	0	0	0	0	0	0	0	0	0	2	2	20	73	97	121	77	63	21	3	0	0	0	0	0	121	0	20
29	0	0	0	0	0	0	0	0	0	2	2	47	56	60	72	42	26	15	2	0	0	0	0	0	72	0	13
30	0	0	0	0	0	0	0	0	0	4	4	51	89	109	117	149	28	13	4	0	0	0	0	0	149	0	23
31	0	0	0	0	0	0	0	0	0	1	1	10	27	36	51	32	28	17	3	0	0	0	0	0	51	0	9
Max.	0	0	0	0	0	0	1	1	1	4	65	138	169	197	189	120	47	4	4	1	0	0	0	0	197		
Min.	0	0	0	0	0	0	0	0	0	0	3	15	26	35	31	16	4	4	0	0	0	0	0	0	0	0	
Avg.	0	0	0	0	0	0	0	0	0	1	16	45	66	81	74	48	14	14	1	0	0	0	0	0	0	0	14
Total Hours in Month							744							737							Data Recovery				99.1%		

Pebble 1 Meteorological Station - Solar (Watts/m^2)

February 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.				
1	0	0	0	0	0	0	0	0	0	0	5	32	73	133	208	207	123	45	5	0	0	0	0	0	208	0	35				
2	0	0	0	0	0	0	0	0	0	0	5	37	74	99	98	76	52	19	4	0	0	0	0	0	99	0	19				
3	0	0	0	0	0	0	0	0	0	0	8	34	162	142	148	206	155	79	11	0	0	0	0	0	206	0	39				
4	0	0	0	0	0	0	0	0	0	0	8	72	157	208	230	217	171	91	12	0	0	0	0	0	230	0	49				
5	0	0	0	0	0	0	0	0	0	0	10	77	162	214	234	219	174	96	12	0	0	0	0	0	234	0	50				
6	0	0	0	0	0	0	0	0	0	0	11	44	76	86	148	100		11	0	0	0	0	0	0	148	0	22				
7	0	0	0	0	0	0	0	0	0	0	6	38	55	94	89	97	103	44	13	0	0	0	2	5	103	0	23				
8	5	5	5	5	5	4	4	4	4	4	12	37	59	75	118	165	141	53	15	4	3	3	2	2	165	2	31				
9	1	1	1	0	0	0	0	0	0	0	8	44	73	104	115	109	77	36	6	0	0	0	0	0	115	0	24				
10	0	0	0	0	0	0	0	0	1	1	13	43	171	219	227	194	127	66	22	1	0	0	0	0	227	0	45				
11	0	0	0	0	0	0	0	0	0	0	7	29	44	66	85	79	55	25	8	0	0	0	0	0	85	0	17				
12	0	0	0	0	0	0	0	0	0	0	22	82	112	143	281	318	192	82	21	1	0	0	0	0	318	0	52				
13	0	0	0	0	0	0	0	0	0	0	17	51	75	88	107	113	80	51	11	1	0	0	0	0	113	0	25				
14	0	0	0	0	0	0	0	0	0	0	20	49	161	219	221	137	98	64	30	2	0	0	0	0	221	0	42				
15	0	0	0	0	0	0	0	0	0	1	16	100	155	272	167	158	142	79	26	2	0	0	0	0	272	0	47				
16	0	0	0	0	0	0	0	0	0	1	19	61	121	146	189	171	152	82	27	2	0	0	0	0	189	0	40				
17	0	0	0	0	0	0	0	0	0	1	31	129	233	286	299	287	251	93	33	2	0	0	0	0	299	0	69				
18	0	0	0	0	0	0	0	0	0	1	22	65	116	141	120	235	210	80	31	3	0	0	0	0	235	0	43				
19	0	0	0	0	0	0	0	0	0	2	44	108	170	215	240	257	255	219	121	5	0	0	0	0	257	0	68				
20	0	0	0	0	0	0	0	0	0	3	90	201	269	315	334	315	263	183	78	5	0	0	0	0	334	0	86				
21	0	0	0	0	0	0	0	0	0	3	64	173	258	316	339	323	269	187	84	6	0	0	0	0	339	0	84				
22	0	0	0	0	0	0	0	0	0	4	68	175	260	318	341	315	102	142	104	12	0	0	0	0	341	0	77				
23	0	0	0	0	0	0	0	0	0	5	72	177	260	326	315	329	284	176	80	10	0	0	0	0	329	0	85				
24	0	0	0	0	0	0	0	0	0	7	79	181	271	330	354	333	281	203	100	11	0	0	0	0	354	0	90				
25	0	0	0	0	0	0	0	0	0	10	70	172	260	316	249	210	158	141	65	8	0	0	0	0	316	0	69				
26	0	0	0	0	0	0	0	0	0	8	59	159	239	292	285	380	308	193	93	15	0	0	0	0	380	0	85				
27	0	0	0	0	0	0	0	0	0	15	77	146	248	302	336	298	232	140	48	10	0	0	0	0	336	0	77				
28	0	0	0	0	0	0	0	0	0	10	88	188	283	361	387	369	317	231	125	20	0	0	0	0	387	0	99				
Max.	5	5	5	5	5	5	4	4	4	15	90	201	283	361	387	380	317	231	125	20	3	3	2	5	387						
Min.	0	0	0	0	0	0	0	0	0	0	5	29	44	66	85	76	52	19	4	0	0	0	0	0		0					
Avg.	0	0	0	0	0	0	0	0	0	3	34	97	164	208	224	222	177	107	43	4	0	0	0	0			53				
Total Hours in Month																									672		670		Data Recovery		99.7%

HCG, Inc.

Pebble 1 Meteorological Station - Solar (Watts/m^2)

March 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	17	113	220	307	367	390	373	316	232	123	22	0	0	0	0	390	0	103
2	0	0	0	0	0	0	0	0	0	18	106	212	299	359	383	370	314	231	127	24	0	0	0	0	383	0	102
3	0	0	0	0	0	0	0	0	0	19	112	219	308	361	388	367	302	232	120	24	0	0	0	0	388	0	102
4	0	0	0	0	0	0	0	0	0	22	124	235	324	383	405	386	330	246	138	31	1	0	0	0	405	0	109
5	0	0	0	0	0	0	0	0	0	27	137	245	334	392	415	398	340	256	149	34	1	0	0	0	415	0	114
6	0	0	0	0	0	0	0	0	1	31	142	251	341	400	421	405	347	263	156	39	1	0	0	0	421	0	117
7	0	0	0	0	0	0	0	0	0	33	151	258	349	409	430	414	355	268	161	46	1	0	0	0	430	0	120
8	0	0	0	0	0	0	0	0	1	27	114	217	348	411	444	395	321	231	117	34	1	0	0	0	444	0	111
9	0	0	0	0	0	0	0	0	1	35	143	223	354	416	438	420	363	277	168	41	2	0	0	0	438	0	120
10	0	0	0	0	0	0	0	0	1	46	155	217	298	379	410	389	370	283	176	56	2	0	0	0	410	0	116
11	0	0	0	0	0	0	0	0	2	51	173	282	374	432	455	437	378	292	183	61	2	0	0	0	455	0	130
12	0	0	0	0	0	0	0	0	2	60	182	291	386	443	464	444	383	295	186	66	3	0	0	0	464	0	134
13	0	0	0	0	0	0	0	0	3	66	189	300	391	448	470	450	391	305	195	71	3	0	0	0	470	0	137
14	0	0	0	0	0	0	0	0	4	71	194	304	395	454	472	455	396	309	197	69	4	0	0	0	472	0	138
15	0	0	0	0	0	0	0	0	5	77	199	309	400	459	479	460	401	314	203	82	5	0	0	0	479	0	141
16	0	0	0	0	0	0	0	0	6	84	205	316	408	466	487	468	409	321	209	88	6	0	0	0	487	0	145
17	0	0	0	0	0	0	0	0	8	91	215	327	417	476	497	478	417	330	217	94	7	0	0	0	497	0	149
18	0	0	0	0	0	0	0	0	6	64	209	303	425	481	501	481	420	333	221	98	9	0	0	0	501	0	148
19	0	0	0	0	0	0	0	0	11	105	228	341	433	492	512	493	432	343	229	106	11	0	0	0	512	0	156
20	0	0	0	0	0	0	0	0	11	65	116	145	168	265	247	234	230	155	87	34	5	0	0	0	265	0	73
21	0	0	0	0	0	0	0	0	8	45	141	288	330	316	536	707	560	339	211	81	10	0	0	0	707	0	149
22	0	0	0	0	0	0	0	0	19	118	233	329	418	493	517	518	458	369	234	90	15	0	0	0	518	0	159
23	0	0	0	0	0	0	0	0	12	129	257	374	470	529	548	527	464	355	248	103	19	0	0	0	548	0	168
24	0	0	0	0	0	0	0	0	24	139	266	383	475	534	554	532	469	377	260	135	21	0	0	0	554	0	174
25	0	0	0	0	0	0	0	0	25	151	273	256	328	459	384	442	438	235	154	64	14	0	0	0	459	0	134
26	0	0	0	0	0	0	0	0	16	48	100	197	278	344	443	462	411	324	206	89	24	0	0	0	462	0	123
27	0	0	0	0	0	0	0	1	35	157	286	407	500	556	573	550	484	391	272	147	29	0	0	0	573	0	183
28	0	0	0	0	0	0	0	1	38	164	295	412	504	561	579	557	491	399	280	153	31	0	0	0	579	0	186
29	0	0	0	0	0	0	0	1	45	177	291	415	504	565	583	560	492	401	281	146	33	0	0	0	583	0	187
30	0	0	0	0	0	0	0	2	49	159	285	403	494	554	571	546	469	409	280	141	31	0	0	0	571	0	183
31	0	0	0	0	0	0	0	2	51	124	216	335	452	522	544	518	494	366	285	170	38	1	0	0	544	0	172
Max.	0	0	0	0	0	0	0	2	51	177	295	415	504	565	583	707	560	409	285	170	38	1	0	0	707		
Min.	0	0	0	0	0	0	0	0	0	17	100	145	168	265	247	234	230	155	87	22	0	0	0	0	0	0	
Avg.	0	0	0	0	0	0	0	0	12	78	189	291	381	443	469	459	401	306	196	79	11	0	0	0	138		
Total Hours in Month	744																										
Hours Data Available	744																										
Data Recovery	100.0%																										

Pebble 1 Meteorological Station - Solar (Watts/m^2)

April 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	2	50	161	291	400	510	565	492	495	394	358	226	140	43	1	0	0	565	0	172
2	0	0	0	0	0	0	0	2	45	160	254	347	282	388	380	369	352	297	183	97	31	1	0	0	388	0	133
3	0	0	0	0	0	0	0	1	24	75	106	204	276	298	349	374	307	266	227	106	25	1	0	0	374	0	110
4	0	0	0	0	0	0	0	3	44	131	263	336	495	495	477	285	280	235	195	67	18	1	0	0	495	0	139
5	0	0	0	0	0	0	0	7	100	179	205	309	369	536	386	504	372	181	196	145	24	1	0	0	536	0	146
6	0	0	0	0	0	0	0	8	81	126	175	230	300	342	431	309	241	133	89	36	12	1	0	0	431	0	105
7	0	0	0	0	0	0	0	3	38	132	292	372	288	501	458	526	431	237	189	82	20	1	0	0	526	0	149
8	0	0	0	0	0	0	0	6	61	116	212	460	483	425	371	359	332	165	160	75	33	2	0	0	483	0	136
9	0	0	0	0	0	0	0	3	26	41	77	150	283	381	377	334	282	205	157	91	42	2	0	0	381	0	102
10	0	0	0	0	0	0	0	7	41	102	191	245	388	517	437	354	462	334	231	120	88	6	0	0	517	0	147
11	0	0	0	0	0	0	0	13	83	139	212	344	597	571	653	589	455	513	365	231	70	8	0	0	653	0	202
12	0	0	0	0	0	0	0	8	49	246	372	477	568	663	682	629	592	410	378	208	70	9	0	0	682	0	223
13	0	0	0	0	0	0	0	13	67	196	221	331	370	506	571	612	542	496	381	190	25	6	0	0	612	0	189
14	0	0	0	0	0	0	0	11	85	154	243	436	452	591	488	381	423	462	376	177	61	9	0	0	591	0	181
15	0	0	0	0	0	0	0	11	67	164	224	325	337	442	468	320	574	469	237	70	41	8	0	0	574	0	156
16	0	0	0	0	0	0	0	16	65	278	386	541	549	638	639	406	357	446	378	171	57	11	0	0	639	0	206
17	0	0	0	0	0	0	1	12	57	96	106	207	203	219	237	208	185	160	112	72	72	9	0	0	237	0	81
18	0	0	0	0	0	0	0	9	25	98	182	350	443	468	343	291	189	176	126	79	31	6	0	0	468	0	122
19	0	0	0	0	0	0	1	25	76	140	358	675	437	270	400	316	194	176	126	79	31	6	0	0	675	0	138
20	0	0	0	0	0	0	0	17	61	150	255	319	382	403	616	436	545	320	147	97	60	8	0	0	616	0	159
21	0	0	0	0	0	0	1	22	67	107	190	369	332	348	415	378	274	147	152	117	28	9	0	0	415	0	123
22	0	0	0	0	0	0	2	19	53	93	205	201	196	211	168	225	192	97	90	65	21	4	0	0	225	0	77
23	0	0	0	0	0	0	3	47	116	197	496	369	312	447	311	317	208	365	280	173	115	27	1	0	496	0	158
24	0	0	0	0	0	0	1	20	72	184	275	457	496	356	283	341	362	210	204	125	71	19	0	0	496	0	145
25	0	0	0	0	0	0	1	25	57	133	151	415	291	423	591	629	438	483	307	204	59	19	1	0	629	0	176
26	0	0	0	0	0	0	7	80	177	277	404	566	647	697	717	662	456	504	462	356	239	31	1	0	717	0	262
27	0	0	0	0	0	0	8	108	252	332	457	573	640	666	512	461	610	498	355	120	75	28	1	0	666	0	237
28	0	0	0	0	0	0	7	39	96	166	241	470	636	628	733	667	615	537	407	298	157	36	2	0	733	0	239
29	0	0	0	0	0	0	8	68	231	314	363	493	328	590	529	404	282	337	424	294	169	50	2	0	590	0	204
30	0	0	0	0	0	0	13	96	216	348	478	583	691	666	500	542	502	539	430	203	155	55	3	0	691	0	251
Max.	0	0	0	0	0	0	13	108	252	348	496	675	691	697	733	667	615	539	462	356	239	55	3	0	733		
Min.	0	0	0	0	0	0	0	1	24	41	77	150	196	211	168	208	185	97	89	36	12	1	0	0	0	0	0
Avg.	0	0	0	0	0	0	2	23	83	168	263	385	419	475	467	424	381	325	256	144	65	13	0	0	162		
Total Hours in Month	720																								Data Recovery		100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Solar (Watts/m^2)

May 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	4	42	107	222	280	338	382	313	453	707	608	320	204	86	39	13	1	0	382	0	112
2	0	0	0	0	0	0	9	48	93	172	318	381	368	381	453	707	608	455	480	319	163	94	3	0	707	0	210
3	0	0	0	0	0	0	15	69	192	341	471	589	674	742	744	775	699	412	259	271	172	18	2	0	775	0	269
4	0	0	0	0	0	0	13	96	231	351	247	211	457	622	710	699	557	580	334	100	83	53	4	0	710	0	224
5	0	0	0	0	0	0	12	59	79	151	217	234	302	406	484	345	395	566	443	240	66	26	2	0	566	0	168
6	0	0	0	0	0	0	10	34	111	185	310	368	283	341	294	273	309	240	136	98	65	28	2	0	368	0	129
7	0	0	0	0	0	1	23	87	115	144	178	216	259	324	449	430	153	178	123	78	61	22	3	0	449	0	118
8	0	0	0	0	0	0	6	28	70	106	148	211	305	285	556	648	495	282	248	198	68	23	3	0	648	0	153
9	0	0	0	0	0	0	6	32	61	82	148	183	207	262	348	368	377	350	374	284	163	85	10	0	377	0	139
10	0	0	0	0	0	1	16	80	125	219	320	414	553	575	571	512	444	404	418	220	120	32	5	0	575	0	209
11	0	0	0	0	0	2	29	125	248	352	485	608	695	735	741	719	658	570	460	332	203	86	12	0	741	0	294
12	0	0	0	0	0	1	26	129	238	366	500	606	498	664	730	718	653	476	426	306	150	62	8	0	730	0	273
13	0	0	0	0	0	0	2	12	35	52	79	160	221	229	225	263	224	198	202	133	87	29	5	0	263	0	90
14	0	0	0	0	0	0	9	52	156	211	426	419	454	277	254	188	143	122	203	116	78	30	6	0	454	0	131
15	0	0	0	0	0	1	14	52	89	219	242	422	330	381	454	592	704	570	436	339	218	99	18	0	704	0	216
16	0	0	0	0	0	2	20	105	148	200	294	458	554	435	312	274	264	233	202	168	126	53	13	1	554	0	161
17	0	0	0	0	0	1	12	55	107	207	491	474	652	593	578	685	673	591	463	300	149	44	10	0	685	0	253
18	0	0	0	0	0	3	46	150	273	402	496	591	688	764	782	778	599	632	310	70	56	39	10	0	782	0	279
19	0	0	0	0	0	5	54	154	224	267	204	304	530	685	594	683	650	619	466	362	147	91	25	1	685	0	253
20	0	0	0	0	0	4	47	148	249	391	328	313	280	242	215	273	408	364	357	276	247	125	22	1	408	0	179
21	0	0	0	0	0	5	53	156	278	407	535	655	719	748	766	712	584	570	467	372	253	111	32	2	766	0	309
22	0	0	0	0	0	2	26	75	133	133	55	167	226	282	249	484	414	369	409	211	117	55	11	0	484	0	142
23	0	0	0	0	0	5	12	64	96	198	228	335	175	233	275	397	383	217	89	66	34	18	6	1	397	0	118
24	0	0	0	0	0	1	13	38	82	175	103	106	174	109	132	196	111	120	108	72	75	16	6	0	196	0	68
25	0	0	0	0	0	2	21	43	50	66	83	120	149	234	142	134	190	168	166	175	104	40	15	1	234	0	79
26	0	0	0	0	0	6	18	41	97	100	174	162	187	285	435	452	188	188	203	81	71	39	13	1	452	0	114
27	0	0	0	0	0	3	21	105	253	317	413	459	521	569	349	654	486	532	466	365	249	126	18	2	654	0	246
28	0	0	0	0	0	6	39	148	180	223	271	281	397	463	805	637	643	502	233	300	248	66	16	3	805	0	228
29	0	0	0	0	0	8	75	176	296	425	555	600	464	302	231	298	261	314	535	130	96	63	25	4	600	0	202
30	0	0	0	0	0	6	39	105	101	182	318	297	272	288	337	434	571	539	264	122	112	56	19	2	571	0	169
31	0	0	0	0	0	8	37	84	161	210	328	490	275	223	259	216	157	184	119	54	44	23	11	2	490	0	120
Max.	0	0	0	0	0	8	75	176	296	425	555	655	719	764	805	778	704	632	535	372	253	126	32	4	805		
Min.	0	0	0	0	0	0	2	12	35	52	55	106	149	109	132	134	111	120	89	54	34	13	1	0	0		
Avg.	0	0	0	0	0	2	23	84	151	228	298	360	395	419	449	485	434	383	310	201	125	54	11	1	183		

Total Hours in Month

744

Hours Data Available

741

Data Recovery

99.6%

HCG, Inc.

June 2007

Day	Hours Data Available																														Total Hours in Month			Max.	Min.	Avg.
	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	720	720										
1	0	0	0	0	0	3	13	60	113	306	170	245	254	235	177	208	270	172	99	49	46	22	6	1			306	0	102							
2	0	0	0	0	0	8	31	53	56	94	164	219	307	395	434	389	322	341	263	164	89	58	16	1			434	0	142							
3	0	0	0	0	0	2	23	59	116	145	253	266	352	335	631	334	484	467	196	235	78	134	51	6			631	0	174							
4	0	0	0	0	0	5	32	44	76	79	137	172	229	336	266	233	168	360	279	73	63	29	4	1			360	0	108							
5	0	0	0	0	0	2	15	53	35	74	208	325	447	458	302	282	289	343	185	139	113	131	21	6			458	0	143							
6	0	0	0	0	1	10	33	78	241	446	547	431	623	786	782	745	715	594	407	217	162	51	33	6			786	0	288							
7	0	0	0	0	0	18	103	160	342	428	642	442	540	373	292	539	378	467	398	374	265	134	38	7			642	0	247							
8	0	0	0	0	0	11	59	149	159	148	278	446	556	459	443	633	576	420	212	221	153	87	25	6			633	0	210							
9	0	0	0	0	0	8	34	85	126	232	361	392	399	326	376	436	380	227	218	225	115	47	20	3			436	0	167							
10	0	0	0	0	0	12	40	105	170	304	457	633	721	757	764	764	621	467	334	220	199	106	32	3			764	0	279							
11	0	0	0	0	0	10	54	103	146	188	230	551	679	572	710	502	633	632	543	385	269	67	16	2			710	0	262							
12	0	0	0	0	0	2	12	35	67	108	105	122	129	165	141	185	216	184	170	135	91	104	29	6			216	0	84							
13	0	0	0	0	1	8	33	106	135	180	264	391	310	140	224	479	378	259	119	164	130	45	17	3			479	0	141							
14	0	0	0	0	1	7	43	89	161	239	311	491	501	265	257	472	197	235	260	199	122	43	15	7			501	0	163							
15	0	0	0	0	1	23	87	190	182	379	554	648	707	773	740	663	719	540	537	377	281	165	67	8			773	0	318							
16	0	0	0	0	2	22	81	201	307	418	527	592	668	681	686	550	523	428	258	157	91	48	14	2			686	0	261							
17	0	0	0	0	0	2	14	52	135	213	242	363	254	193	281	469	463	324	137	142	135	79	29	4			469	0	147							
18	0	0	0	0	1	9	47	130	183	332	267	270	265	295	641	429	224	192	416	198	170	40	22	7			641	0	172							
19	0	0	0	0	1	22	86	158	195	274	270	649	734	754	744	735	708	596	493	403	269	165	60	11			754	0	305							
20	1	0	0	0	1	17	89	189	308	431	550	651	716	710	682	682	711	622	252	273	152	88	35	6			716	0	299							
21	0	0	0	0	1	8	36	86	224	301	520	555	484	543	549	439	556	569	329	230	122	42	16	3			569	0	234							
22	0	0	0	0	0	3	33	61	71	79	180	168	140	78	108	100	86	131	113	81	41	22	9	1			180	0	63							
23	0	0	0	0	0	2	8	13	17	30	37	64	98	129	118	78	82	81	70	46	50	43	14	2			129	0	41							
24	0	0	0	0	0	4	10	29	68	103	111	148	203	228	260	183	227	224	256	300	259	143	20	4			300	0	116							
25	0	0	0	0	0	4	21	57	103	121	272	257	220	188	304	415	396	310	237	160	94	61	23	7			415	0	135							
26	1	0	0	0	1	12	54	181	162	320	489	321	442	565	750	774	729	710	564	347	301	170	44	9			774	0	289							
27	0	0	0	0	2	16	98	155	251	439	477	563	620	775	699	636	733	465	357	292	205	81	27	4			775	0	287							
28	0	0	0	0	0	4	26	46	68	119	179	182	164	249	219	202	272	92	82	176	78	46	40	13			272	0	94							
29	1	0	0	0	2	21	85	190	308	384	240	549	769	847	755	650	687	687	547	383	171	146	33	10			847	0	311							
30	1	0	0	0	0	17	75	119	200	187	269	309	493	582	545	519	345	229	148	180	58	55	27	5			582	0	182							
Max.	1	0	0	0	2	23	103	201	342	446	542	551	769	847	782	774	733	710	564	403	301	170	67	13			847									
Min.	0	0	0	0	0	2	8	13	17	30	37	64	98	78	108	78	82	81	70	46	41	22	4	1			0									
Avg.	0	0	0	0	1	10	46	101	157	237	310	381	434	440	463	457	436	379	283	218	146	82	27	5			192									
Data Recovery																														100.0%						

HCG, Inc.

July 2007

100.0%

HCG, Inc.

Pebble 1 Meteorological Station - Solar (Watts/m^2)

August 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	0	0	0	0	0	0	2	7	25	59	123	145	253	149	174	241	183	142	51	47	21	6	3	0	253	0	68			
2	0	0	0	0	0	0	3	11	33	68	67	58	80	105	117	110	224	198	105	64	63	27	4	0	224	0	56			
3	0	0	0	0	0	0	2	11	17	29	57	155	133	173	196	216	191	163	93	28	20	6	1	0	216	0	62			
4	0	0	0	0	0	0	0	3	11	18	22	35	44	78	67	54	56	84	127	64	24	7	1	0	127	0	29			
5	0	0	0	0	0	0	3	11	18	45	153	85	137	188	123	136	239	162	83	62	46	25	3	0	239	0	63			
6	0	0	0	0	0	0	5	62	214	333	440	390	373	599	453	347	371	567	352	120	112	34	7	0	599	0	199			
7	0	0	0	0	0	0	11	72	192	262	387	351	310	568	669	691	583	356	433	311	192	81	8	0	691	0	228			
8	0	0	0	0	0	0	11	46	76	162	359	353	451	571	427	454	273	309	227	235	109	53	6	0	571	0	172			
9	0	0	0	0	0	0	12	97	203	322	451	526	626	691	697	732	439	568	449	212	174	58	6	0	732	0	261			
10	0	0	0	0	0	0	9	79	195	317	438	542	621	656	687	680	615	530	403	267	173	60	4	0	687	0	261			
11	0	0	0	0	0	0	11	83	150	263	401	515	538	458	434	377	377	248	159	107	56	19	2	0	538	0	175			
12	0	0	0	0	0	0	1	5	21	40	108	127	197	230	213	230	390	528	414	286	167	58	5	0	528	0	126			
13	0	0	0	0	0	0	6	69	181	301	419	476	571	528	404	402	385	438	417	167	60	14	1	0	571	0	202			
14	0	0	0	0	0	0	1	18	75	72	57	67	106	119	228	289	222	150	136	83	101	11	1	0	289	0	72			
15	0	0	0	0	0	0	1	6	24	95	129	341	188	171	205	159	118	113	114	82	57	20	1	0	341	0	76			
16	0	0	0	0	0	0	4	77	198	302	404	528	610	533	338	597	429	321	198	144	166	46	1	0	610	0	204			
17	0	0	0	0	0	0	2	23	139	122	284	424	216	253	155	114	134	324	309	292	96	33	2	0	424	0	122			
18	0	0	0	0	0	0	1	7	45	102	128	143	101	110	141	222	170	158	80	79	58	21	1	0	222	0	65			
19	0	0	0	0	0	0	1	25	99	162	198	180	186	154	221	356	497	315	152	84	64	15	0	0	497	0	113			
20	0	0	0	0	0	0	0	3	8	20	33	42	86	110	146	173	200	261	208	137	99	18	1	0	261	0	64			
21	0	0	0	0	0	0	0	6	17	32	33	47	71	74	93	101	104	69	46	40	17	4	0	0	104	0	31			
22	0	0	0	0	0	0	0	3	14	36	50	77	92	102	91	64	67	66	66	35	12	3	0	0	102	0	32			
23	0	0	0	0	0	0	0	6	26	95	217	205	195	228	238	229	218	193	126	72	27	5	0	0	238	0	87			
24	0	0	0	0	0	0	1	33	67	127	191	268	510	236	160	266	342	378	207	32	23	10	0	0	510	0	119			
25	0	0	0	0	0	0	0	11	32	106	123	122	233	446	427	429	536	439	329	231	112	17	0	0	536	0	150			
26	0	0	0	0	0	0	1	30	61	188	344	473	383	338	411	272	158	253	372	229	117	18	0	0	473	0	152			
27	0	0	0	0	0	0	1	28	130	249	371	469	281	254	400	423	298	409	319	262	138	13	0	0	469	0	168			
28	0	0	0	0	0	0	0	29	142	224	368	475	555	604	616	589	487	328	306	212	90	6	0	0	616	0	210			
29	0	0	0	0	0	0	0	18	37	81	145	235	313	533	600	532	475	432	305	200	74	5	0	0	600	0	166			
30	0	0	0	0	0	0	0	20	108	233	147	188	255	285	289	251	277	375	305	194	17	3	0	0	375	0	123			
31	0	0	0	0	0	0	0	16	99	234	287	405	511	466	410	447	259	239	98	132	16	2	0	0	511	0	151			
Max.	0	0	0	0	0	0	12	97	214	333	451	542	626	691	697	732	615	568	449	311	192	81	8	0	732					
Min.	0	0	0	0	0	0	0	3	8	18	22	35	44	74	67	54	56	66	46	28	12	2	0	0		0				
Avg.	0	0	0	0	0	0	3	30	86	152	224	272	298	323	317	328	301	294	225	146	81	23	2	0			129			
Total Hours in Month											Hours Data Available										Data Recovery									
											744										100.0%									

Pebble 1 Meteorological Station - Solar (Watts/m²)

September 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	7	52	150	115	183	158	146	147	315	369	331	209	179	18	3	0	0	369	0	99
2	0	0	0	0	0	0	0	3	14	44	107	248	386	450	415	364	217	161	109	63	13	1	0	0	450	0	108
3	0	0	0	0	0	0	0	2								142	86	42	46	28	12	1	0	0	142	0	21
4	0	0	0	0	0	0	0	4	50	174	230	212	236	374	427	442	300	173	268	145	35	2	0	0	442	0	128
5	0	0	0	0	0	0	0	6	45	129		464	408	397	663	644	95	48	26	34	18	1	0	0	663	0	129
6	0	0	0	0	0	0	0	4	26	89	153	206	230	407	363	189	319	195	87	25	10	0	0	0	407	0	96
7	0	0	0	0	0	0	0	3	36	171	45	42	68	101	96	96	72	40	28	14	6	0	0	0	171	0	34
8	0	0	0	0	0	0	0	1	11	22	20	45	73	93	101	85	95	99	33	16	10	0	0	0	101	0	29
9	0	0	0	0	0	0	0	1	10	38	90	101	93	135	232	264	317	160	89	88	18	1	0	0	317	0	88
10	0	0	0	0	0	0	0	5	76	208	273	337	289	268	250	348	303	172	174	61	11	0	0	0	348	0	116
11	0	0	0	0	0	0	0	1	19	144	138	88	44	51	36	62	45	40	19	19	3	0	0	0	144	0	30
12	0	0	0	0	0	0	0	1	12	37	115	205	452	576	541	450	347	115	117	55	11	0	0	0	576	0	126
13	0	0	0	0	0	0	0	0	4	23	69	67	202	286	169	143	92	42	65	15	6	0	0	0	286	0	49
14	0	0	0	0	0	0	0	2	30	140	131	141	181	335	320	488	194	212	100	64	16	0	0	0	488	0	98
15	0	0	0	0	0	0	0	2	55	154	298	444	514	475	253	227	287	441	337	82	9	0	0	0	514	0	149
16	0	0	0	0	0	0	0	2	31	139	305	209	327	394	443	269	331	238	168	122	9	0	0	0	443	0	124
17	0	0	0	0	0	0	0	0	7	15	38	88	92	231	222	375	238	181	131	53	8	0	0	0	375	0	70
18	0	0	0	0	0	0	0	0	5	18	34	102	150	95	51	22	44	33	25	15	5	0	0	0	150	0	25
19	0	0	0	0	0	0	0	1	19	27	35	66	103	103		184	128	97	59	16	1	0	0	0	184	0	36
20	0	0	0	0	0	0	0	0	12	22	53	78	87	114	201	189	196	180	52	8	2	0	0	0	201	0	50
21	0	0	0	0	0	0	0	0	14	57	206	285	401	368	443	181	333	251	186	69	4	0	0	0	443	0	117
22	0	0	0	0	0	0	0	1	20	71	102	199	204	202	158	90	52	33	12	4	0	0	0	0	204	0	48
23	0	0	0	0	0	0	0	0	10	42	131	205	183	243	116	87	47	36	24	10	1	0	0	0	243	0	47
24	0	0	0	0	0	0	0	0	5	29	68	103	251	162	156	126	88	68	15	7	0	0	0	0	251	0	45
25	0	0	0	0	0	0	0	0	10	51	137	261	214	247	225	211	123	87	58	23	1	0	0	0	261	0	69
26	0	0	0	0	0	0	0	0	18	70	194	317	235	106	181	146	102	165	90	16	1	0	0	0	317	0	68
27	0	0	0	0	0	0	0	0	9	66	154	204	166	204	275	127	112	96	40	10	0	0	0	0	275	0	61
28	0	0	0	0	0	0	0	0	3	17	51	68	83	81	87	135	107	109	46	10	1	0	0	0	135	0	33
29	0	0	0	0	0	0	0	0	12	122	221	277	182	341	183	193	139	66	34	9	0	0	0	0	341	0	74
30	0	0	0	0	0	0	0	0	3	18	49	63	125	111	96	81	55	84	30	4	0	0	0	0	125	0	30
Max.	0	0	0	0	0	0	0	7	76	208	305	464	514	576	663	644	369	441	337	179	35	3	0	0	663		
Min.	0	0	0	0	0	0	0	0	3	15	20	42	44	51	36	22	44	33	12	4	0	0	0	0		0	
Avg.	0	0	0	0	0	0	0	2	21	79	127	183	212	245	245	222	174	133	89	42	8	0	0	0			73
Total Hours in Month	720																								98.8%		
Hours Data Available	711																								Data Recovery		

HCG, Inc.

Pebble 1 Meteorological Station - Solar (Watts/m^2)

October 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.	
1	0	0	0	0	0	0	0	0	9	52	84	135	106	165	270	245	338	96	28	11	0	0	0	0	338	0	64	
2	0	0	0	0	0	0	0	0	2	14	40	100	222	157	132	158	229	92	74	14	0	0	0	0	229	0	51	
3	0	0	0	0	0	0	0	0	7	99	171	285	364	274	291	292	234	245	62	6	0	0	0	0	364	0	97	
4	0	0	0	0	0	0	0	0	1	12	28	30	45	50	35	43	32	24	14	4	0	0	0	0	50	0	13	
5	0	0	0	0	0	0	0	0	2	19	56	124	96	214	305	261	186	85	55	23	0	0	0	0	305	0	59	
6	0	0	0	0	0	0	0	0	2	24	106	191	193	290	367	217	202	94	60	7	0	0	0	0	367	0	73	
7	0	0	0	0	0	0	0	0	4	22	117	212	312	296	193	291	349	232	99	12	0	0	0	0	349	0	89	
8	0	0	0	0	0	0	0	0	4	60	142	282	357	404	411	378	302	172	66	8	0	0	0	0	411	0	108	
9	0	0	0	0	0	0	0	0	3	52	167	269	345	389	397	367	298	207	94	7	0	0	0	0	397	0	108	
10	0	0	0	0	0	0	0	0	2	33	83	229	321	317	440	291	284	141	71	4	0	0	0	0	440	0	92	
11	0	0	0	0	0	0	0	0	2	28	123	125	150	188	196	145	71	27	8	1	0	0	0	0	196	0	44	
12	0	0	0	0	0	0	0	0	1	12	43	99	191	228	290	314	258	146	73	4	0	0	0	0	314	0	69	
13	0	0	0	0	0	0	0	0	1	18	64	110	188	265	346	304	282	193	60	3	0	0	0	0	346	0	76	
14	0	0	0	0	0	0	0	0	1	23	104	155	201	215	209	122	150	123	24	1	0	0	0	0	215	0	55	
15	0	0	0	0	0	0	0	0	1	24	134	185	145	198	193	196	110	88	21	1	0	0	0	0	198	0	54	
16	0	0	0	0	0	0	0	0	1	17	71	153	176	107	142	144	87	48	13	0	0	0	0	0	176	0	40	
17	0	0	0	0	0	0	0	0	0	23	70	142	210	321	364	227	110	57	11	1	0	0	0	0	364	0	64	
18	0	0	0	0	0	0	0	0	1	18	64	155	173	203	196	176	107	69	20	1	0	0	0	0	203	0	49	
19	0	0	0	0	0	0	0	0	0	12	97	211	284	337	339	307	239	134	20	1	0	0	0	0	339	0	83	
20	0	0	0	0	0	0	0	0	0	16	97	221	258	230	286	164	118	58	14	0	0	0	0	0	286	0	61	
21	0	0	0	0	0	0	0	0	0	8	52	104	175	248	144	128	117	112	18	0	0	0	0	0	248	0	46	
22	0	0	0	0	0	0	0	0	0	6	37	77	146	116	273	244	238	76	15	0	0	0	0	0	273	0	51	
23	0	0	0	0	0	0	0	0	0	8	46	99	127	137	126	111	93	38	12	0	0	0	0	0	137	0	33	
24	0	0	0	0	0	0	0	0	0	6	45	75	129	172	131	94	72	32	5	0	0	0	0	0	172	0	32	
25	0	0	0	0	0	0	0	0	0	3	23	43	37	50	42	27	21	16	3	0	0	0	0	0	50	0	11	
26	0	0	0	0	0	0	0	0	0	4	22	45	67	136	109	88	60	50	4	0	0	0	0	0	136	0	24	
27	0	0	0	0	0	0	0	0	0	2	28	58	117	162	91	36	32	38	5	0	0	0	0	0	162	0	24	
28	0	0	0	0	0	0	0	0	0	4	27	75	99	144	161	128	67	74	8	0	0	0	0	0	161	0	33	
29	0	0	0	0	0	0	0	0	0	2	18	52	79	121	87	66	43	18	2	0	0	0	0	0	121	0	20	
30	0	0	0	0	0	0	0	0	0	1	12	39	77	77	83	73	61	24	3	0	0	0	0	0	83	0	19	
31	0	0	0	0	0	0	0	0	0	2	27	68	142	98	150	141	103	64	6	0	0	0	0	0	150	0	33	
Max.	0	0	0	0	0	0	0	0	9	99	171	285	364	404	440	378	349	245	99	23	0	0	0	0	440			
Min.	0	0	0	0	0	0	0	0	0	1	12	30	37	50	35	27	21	16	2	0	0	0	0	0	0	0		
Avg.	0	0	0	0	0	0	0	0	1	20	71	134	178	203	219	186	158	93	31	4	0	0	0	0	54			
Total Hours in Month									Hours Data Available																744	Data Recovery		100.0%

Pebble 1 Meteorological Station - Solar (Watts/m^2)

November 2007

Day	0	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Max.	Min.	Avg.			
1	0	0	0	0	0	0	0	0	0	2	23	46	74	54	56	66	27	9	1	0	0	0	0	0	74	0	15			
2	0	0	0	0	0	0	0	0	0	1	16	50	122	185	143	109	85	18	2	0	0	0	0	0	185	0	30			
3	0	0	0	0	0	0	0	0	0	2	18	39	61	105	85	62	42	18	1	0	0	0	0	0	105	0	18			
4	0	0	0	0	0	0	0	0	0	1	10	27	44	58	62	44	38	16	1	0	0	0	0	0	62	0	13			
5	0	0	0	0	0	0	0	0	0	1	13	52	58	99	101	100	53	19	2	0	0	0	0	0	101	0	21			
6	0	0	0	0	0	0	0	0	0	1	15	38	45	50	171	191	79	28	2	0	0	0	0	0	191	0	26			
7	0	0	0	0	0	0	0	0	0	1	11	41	60	88	119	66	42	10	3	0	0	0	0	0	119	0	18			
8	0	0	0	0	0	0	0	0	0	0	8	25	47	40	63	78	45	41	2	0	0	0	0	0	78	0	14			
9	0	0	0	0	0	0	0	0	0	1	30	121	103	115	97	110	78	15	1	0	0	0	0	0	121	0	28			
10	0	0	0	0	0	0	0	0	0	0	10	73	147	115	119	106	53	30	1	0	0	0	0	0	147	0	27			
11	0	0	0	0	0	0	0	0	0	1	40	93	136	200	187	124	92	13	1	0	0	0	0	0	200	0	37			
12	0	0	0	0	0	0	0	0	0	0	16	42	73	90	74	75	36	9	0	0	0	0	0	0	90	0	17			
13	0	0	0	0	0	0	0	0	0	0	5	23	40	33	46	37	13	7	0	0	0	0	0	0	46	0	8			
14	0	0	0	0	0	0	0	0	0	0	19	64	80	91	122	75	55	14	1	0	0	0	0	0	122	0	22			
15	0	0	0	0	0	0	0	0	0	0	7	58	125	135	173	175	122	29	1	0	0	0	0	0	175	0	34			
16	0	0	0	0	0	0	0	0	0	0	5	43	63	64	100	49	29	13	0	0	0	0	0	0	100	0	15			
17	0	0	0	0	0	0	0	0	0	0	3	36	75	100	114	110	84	21	0	0	0	0	0	0	114	0	23			
18	0	0	0	0	0	0	0	0	0	0	3	20	35	77	62	58	39	8	0	0	0	0	0	0	77	0	12			
19	0	0	0	0	0	0	0	0	0	0	3	16	25	45	52	44	24	5	0	0	0	0	0	0	52	0	9			
20	0	0	0	0	0	0	0	0	0	0	1	11	32	63	76	55	27	7	0	0	0	0	0	0	76	0	11			
21	0	0	0	0	0	0	0	0	0	0	2	13	40	56	48	50	22	4	0	0	0	0	0	0	56	0	10			
22	0	0	0	0	0	0	0	0	0	0	1	9	15	32	28	48	22	2	0	0	0	0	0	0	48	0	6			
23	0	0	0	0	0	0	0	0	0	0	3	28	61	145	146	65	52	21	0	0	0	0	0	0	146	0	22			
24	0	0	0	0	0	0	0	0	0	0	2	19	66	67	55	55	54	8	0	0	0	0	0	0	67	0	14			
25	0	0	0	0	0	0	0	0	0	0	2	35	50	83	73	55	23	3	0	0	0	0	0	0	83	0	13			
26	0	0	0	0	0	0	0	0	0	0	2	15	27	69	83	68	26	4	0	0	0	0	0	0	83	0	12			
27	0	0	0	0	0	0	0	0	0	0	1	13	20	27	40	29	34	13	0	0	0	0	0	0	40	0	7			
28	0	0	0	0	0	0	0	0	0	0	2	22	37	36	51	37	21	3	0	0	0	0	0	0	51	0	9			
29	0	0	0	0	0	0	0	0	0	0	0	16	33	54	48	25	13	1	0	0	0	0	0	0	54	0	8			
30	0	0	0	0	0	0	0	0	0	0	0	7	18	30	30	20	9	1	0	0	0	0	0	0	30	0	5			
Max.	0	0	0	0	0	0	0	0	0	2	40	121	147	200	187	191	122	41	3	0	0	0	0	0	200					
Min.	0	0	0	0	0	0	0	0	0	0	0	7	15	27	28	20	9	1	0	0	0	0	0	0	0	0				
Avg.	0	0	0	0	0	0	0	0	0	0	9	36	60	80	87	73	45	13	1	0	0	0	0	0	0	0	17			
Total Hours in Month											Hours Data Available										Data Recovery									
											720										100.0%									

HCG, Inc.

December 2007

Data Recovery 90.5%

HCG, Inc.

Pebble 1 Meteorological Station - Daily Total Precipitation (mm)

January 2007 - December 2007

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	0.0	0.0	0.0	0.0	0.3	1.0	0.0	0.0	0.0	0.0	12.7	1.8
2	0.0	1.5	0.5	0.0	2.0	0.8	0.0	0.0	0.0	1.8	0.5	0.0
3	0.3	1.5	1.3	0.0	0.3	0.3	4.3	0.0	9.9	0.8	0.0	1.3
4	0.0	0.0	1.0	1.0	0.0	8.1	13.5	0.0	2.0	14.0	4.8	0.8
5	0.0	0.0	1.8	2.0	0.0	2.5	0.3	0.0	0.0	22.9	2.5	0.5
6	0.0	0.0	3.3	2.3	0.0	0.3	1.8	0.0	5.1	1.8	13.0	10.7
7	0.3	0.3	2.3	5.6	0.0	1.0	1.8	0.0	11.2	2.5	3.3	2.0
8	0.0	0.3	3.0	1.8	0.0	0.5	2.5	0.5	33.0	11.7	7.1	5.3
9	0.5	0.0	0.8	9.1	4.1	0.3	0.0	0.8	9.9	0.0	0.0	1.5
10	1.3	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	1.3	0.0	3.6
11	2.3	0.0	0.0	0.3	0.3	0.0	0.0	0.0	9.4	0.0	0.0	0.0
12	1.0	0.0	1.5	0.0	0.3	0.0	1.3	0.3	24.4	0.0	0.0	0.0
13	0.8	0.3	0.3	0.8	2.0	1.5	8.9	0.0	21.8	1.0	17.0	0.0
14	0.3	0.3	0.8	0.0	1.3	2.3	0.0	6.4	1.3	0.3	10.9	0.0
15	2.3	0.0	2.8	0.8	0.3	0.0	0.0	2.5	0.0	0.0	0.0	3.0
16	5.1	0.0	0.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.5	1.8
17	2.0	0.0	0.0	1.0	0.3	6.4	0.0	0.0	1.0	0.8	1.8	2.5
18	0.0	1.3	0.0	9.1	0.0	2.0	1.8	6.4	32.8	0.3	0.8	0.0
19	0.0	0.0	0.0	0.8	0.0	0.0	0.0	2.3	17.5	0.5	3.6	0.5
20	0.0	0.3	1.3	3.8	0.0	0.0	1.5	4.6	12.7	1.5	10.2	7.1
21	0.8	1.0	6.4	0.5	0.3	0.3	0.3	2.5	0.5	0.0	4.8	1.5
22	0.3	0.3	0.0	1.8	1.5	7.1	4.3	6.9	8.4	0.0	25.1	3.6
23	0.5	0.0	0.0	0.0	0.0	18.3	9.1	2.3	9.4	1.3	0.8	0.8
24	0.3	0.5	0.0	0.8	1.5	3.0	5.1	0.5	13.2	10.9	0.8	0.0
25	2.5	1.8	0.0	0.3	3.6	0.3	0.3	0.0	4.3	12.7	7.1	0.5
26	4.3	0.3	0.3	0.0	0.8	0.0	0.0	0.3	1.8	6.4	2.3	2.3
27	6.9	0.0	0.5	0.0	0.3	0.0	3.8	1.0	1.0	3.3	3.3	8.1
28	2.5	0.3	0.0	0.0	0.3	0.5	0.0	0.0	17.0	0.0	0.8	0.3
29	4.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	8.1	5.1	4.1	1.3
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	8.1	3.8	3.8
31	0.5	0.0	0.0	0.0	1.3	0.0	0.0	1.8	0.0	2.8	5.1	5.1
Total	38.6	9.7	27.9	46.0	20.3	56.4	60.5	39.9	256.5	111.5	142.5	69.6

Pebble 1 Meteorological Station - Daily Total Pan Evaporation (mm)

January 2007 - December 2007

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	-	-	-	-	-	0.0	1.4	2.6	1.2	0.0	-	-
2	-	-	-	-	0.0	0.1	3.4	0.0	1.2	0.0	-	-
3	-	-	-	-	0.6	0.2	0.0	0.7	0.0	0.3	-	-
4	-	-	-	-	1.7	0.0	0.0	0.0	0.0	0.0	-	-
5	-	-	-	-	1.7	0.0	1.1	0.0	2.3	0.0	-	-
6	-	-	-	-	2.1	3.4	0.0	2.9	0.0	0.0	-	-
7	-	-	-	-	1.2	4.0	0.0	3.4	0.0	0.0	-	-
8	-	-	-	-	1.2	2.3	0.0	2.4	0.0	0.0	-	-
9	-	-	-	-	0.0	0.0	0.4	3.6	0.0	0.7	-	-
10	-	-	-	-	1.7	5.0	4.3	4.2	0.0	0.0	-	-
11	-	-	-	-	3.7	5.5	5.4	3.4	0.0	1.9	-	-
12	-	-	-	-	3.1	0.0	0.2	2.1	0.0	3.9	-	-
13	-	-	-	-	0.0	0.0	0.0	2.2	0.0	-	-	-
14	-	-	-	-	0.0	0.0	1.4	0.0	0.0	-	-	-
15	-	-	-	-	0.9	6.1	1.6	0.0	1.5	-	-	-
16	-	-	-	-	4.0	5.5	3.0	0.0	1.8	-	-	-
17	-	-	-	-	2.6	0.0	6.5	0.9	0.0	-	-	-
18	-	-	-	-	2.7	0.0	0.0	0.0	0.0	-	-	-
19	-	-	-	-	3.6	5.4	1.2	0.5	0.0	-	-	-
20	-	-	-	-	2.2	9.2	0.0	0.0	0.0	-	-	-
21	-	-	-	-	5.9	5.8	0.9	0.0	0.0	-	-	-
22	-	-	-	-	0.7	0.0	0.0	0.0	0.0	-	-	-
23	-	-	-	-	4.6	0.0	0.0	0.0	0.0	-	-	-
24	-	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	-
25	-	-	-	-	0.0	2.6	2.7	0.0	0.0	-	-	-
26	-	-	-	-	0.2	2.8	4.2	0.2	0.0	-	-	-
27	-	-	-	-	4.2	5.4	0.0	0.0	0.0	-	-	-
28	-	-	-	-	2.7	0.4	3.8	0.9	0.0	-	-	-
29	-	-	-	-	2.1	4.1	3.8	2.7	0.0	-	-	-
30	-	-	-	-	2.9	3.9	0.1	1.9	0.0	-	-	-
31	-	-	-	-	0.0		3.2	0.0		-	-	-
Total	-	-	-	-	56.4	71.5	48.3	34.4	8.0	6.8	-	-

Appendix E

Validated Manual Particulate Data

Not Applicable.